July 3, 2007

Mr. Barney Chan
Alameda County
Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Ste. 250
Alameda, California 94502-6577

RE: Results of May 2007 Quarterly Groundwater Monitoring
Alaska Gas
6211 San Pablo Avenue
Oakland, California

Dear Mr. Chan:

Attached for your review and comment is the July 3, 2007 "*Results of May 2007 Quarterly Groundwater Monitoring, Alaska Gasoline Company, Oakland, California, Case #RO0000127*" report prepared by HerSchy Environmental, Inc upon my behalf, for the above-referenced site.

As the legally authorized representative of the above-referenced project, I have reviewed the attached report and declare, under penalty of perjury, that the information and/or recommendations contained in the attached document are true and correct to the best of my knowledge.

Sincerely,

Mr. Pritpaul Sappal

HerSchy Environmental, Inc.

July 3, 2007
Project A51-01

Mr. Barney Chan
Alameda County
Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Ste. 250
Alameda, California 94502-6577

Re: **Results of May 2007 Quarterly Groundwater Monitoring**
Alaska Gasoline Company
6211 San Pablo Avenue
Oakland, California
Case #RO0000127

Dear Mr. Chan:

HerSchy Environmental, Inc. (HerSchy), on behalf of Mr. Pritpaul Sappal of the Alaska Gasoline Company, has prepared this report summarizing the results of the most recent quarterly monitoring event. Also included is a progress summary of the soil vapor extraction system (SVES), status of on-going permitting, and a workplan for the replacement of monitoring well MW-1R. The site is located at 6211 San Pablo Avenue, which is on the northwest corner of San Pablo Avenue and 62nd Street in Oakland, Alameda County, California (Figure 1). Groundwater monitoring was performed on May 10, 2007.

METHODS OF INVESTIGATION

Groundwater Sampling Procedures

Groundwater samples were collected from five of the seven monitoring and extraction wells on May 10, 2007. Monitoring well MW-4 and extraction well EX-1 were found to have free product, and therefore were not sampled. All monitoring wells were measured for static water level and total depth using an electric sounder prior to initiating sampling. Depth to groundwater was recorded to the nearest 0.01 feet on field sampling data sheets. The groundwater elevation in the monitoring wells was calculated by subtracting the measured depth to groundwater from the surveyed well elevation. The depth to groundwater, total depth of the well, and well diameter were used to calculate the purge volume.

At least three casing volumes were purged from each well prior to collecting a groundwater sample using a Waterra electric pump and dedicated hoses. Physical characteristics (temperature, electrical conductivity, and pH) were measured at the initiation of purging and then again just prior to collection of the groundwater sample. These characteristics were recorded on field sampling data sheets

which are presented in Attachment A. One sample from each well was collected and contained in three 40-milliliter vials. Each of the sample containers were filled completely to form a positive meniscus, capped, and checked to ensure no air bubbles were present.

Samples were sealed in a ziplock bag and placed in a cooler chest with frozen gel packs ("blue ice") immediately after sampling. Samples were maintained at, or below, four degrees Celsius until delivered to the laboratory. Groundwater samples were handled under chain-of-custody documentation until delivered to a California certified laboratory.

Laboratory Analysis

Groundwater samples were analyzed for gasoline-range total petroleum hydrocarbons (TPHg) by EPA method 8015M, benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA method 8020. Groundwater samples were also analyzed for the fuel oxygenates and additives MTBE, di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butanol (TBA), 1,2-dichloroethane (1,2-DCA) and ethylene dibromide (EDB) using EPA method 8260b.

SVES Monitoring

Regular monitoring of the SVES, performed on at least a monthly basis, includes measurements of various physical system properties. Samples for laboratory analyses collected from the SVES are taken from influent and effluent air streams. Air samples are collected utilizing a vacuum box and tedlar bags attached to the influent and effluent air stream. Negative pressure created by the vacuum box fills the tedlar bags with process air. Air samples are packed in sealed, unchilled containers for transport immediately following sampling. Air flow readings are taken with a hotwire style velocity meter inserted into the influent air stream. All samples are stored, transported, and delivered under proper chain-of-custody documentation. Other monitored parameters include, but are not limited to the following:

- Measurement of Influent & Effluent concentrations using either a portable organic vapor analyzer (OVA) or laboratory analysis
- Air flow readings into the oxidizer
- System runtime hours
- System temperature levels
- Water production levels
- Vacuum exerted on vapor extraction wells
- Currently operating vapor extraction wells

A comprehensive table of monitoring data is included as Attachment B.

RESULTS OF INVESTIGATION

Groundwater Conditions

Due to the presence of free product in monitoring well MW-4 and extraction well EX-1, groundwater data from these wells were not used in determining the groundwater flow direction or gradient. The physical integrity of monitoring well MW-1R remains compromised and as such groundwater data from MW-1R was not included in determining flow direction or gradient. A workplan to replace MW-1R is included in this report.

Groundwater was present beneath the site at an average depth of 6.50 feet below the average surveyed well elevation during the May 2007 monitoring event. Groundwater elevation during this quarter averaged 29.18 feet above mean sea level. This represents a decrease in average groundwater elevation of approximately 0.30 feet since the February 2007 monitoring event. Groundwater flow direction was approximately South 38 degrees West at a gradient of 0.013 on May 10, 2007. Groundwater conditions are summarized in Table 1 and are presented graphically in Figure 2.

Table 1
Groundwater Conditions
Alaska Gasoline, Oakland

Well Number	Elevation	Depth to GW	GW Elevation
May 5, 2006			
EX-1	33.28	0.81' free product	------
MW-1R	36.67	7.46	29.21
MW-2	36.33	6.89	29.44
MW-3	35.12	6.65	28.47
MW-4	34.11	0.39' free product	------
MW-5	35.17	6.10	29.07
MW-6	36.07	6.81	26.26
Flow Direction = S. 28 W.; Gradient = 0.013			
August 18, 2006			
EX-1	33.28	0.69' free product	------
MW-1R	36.67	8.58	28.09
MW-2	36.33	8.05	28.28
MW-3	35.12	7.73	27.39
MW-4	34.11	0.46' free product	------
MW-5	35.17	6.77	28.40
MW-6	36.07	7.97	28.10
Flow Direction = S. 19 W.; Gradient = 0.0125			
December 1, 2006			
EX-1	33.28	1/16 inch free product	------
MW-1R	36.67	6.56	30.11
MW-2	36.33	7.58	28.75
MW-3	35.12	8.51	26.61
MW-4	34.11	0.48' free product	------
MW-5	35.17	6.47	28.70

Table 1
Groundwater Conditions
Alaska Gasoline, Oakland

Well Number	Elevation	Depth to GW	GW Elevation
MW-6	36.07	7.60	28.47
Flow Direction = S. 9 W.; Gradient = 0.03			
February 23, 2007			
EX-1	33.28	NS	NS
MW-1R	36.67	NA	NA
MW-2	36.33	6.27	30.06
MW-3	35.12	6.15	28.97
MW-4	34.11	0.97' free product	-----
MW-5	35.17	5.59	29.58
MW-6	36.07	6.78	29.29
Flow Direction = S. 39 W.; Gradient = 0.012			
May 10, 2007			
EX-1	33.28	0.3' free product	------
MW-1R	36.67	NA	NA
MW-2	36.33	6.83	29.50
MW-3	35.12	6.54	28.58
MW-4	34.11	0.47' free product	------
MW-5	35.17	5.90	29.27
MW-6	36.07	6.72	29.35
Flow Direction = S. 38 W.; Gradient = 0.013			

Elevations in feet above mean sea level (MSL) NS = not sampled
NA – Not applicable due to damage to well

Based on the data gathered from the site monitoring wells, the groundwater flow direction is toward San Francisco Bay, located approximately 0.75 miles southwest of the site. Regional groundwater flow appears to parallel the surface grade in the area.

Groundwater Quality

Groundwater samples were submitted to the laboratory and analyzed for the above-mentioned fuel constituents. Groundwater samples were not collected from wells MW-4 and EX-1 due to the presence of free product as noted in Table 1 above. Table 2 summarizes analytical data for the current quarter along with data from the previous seven quarters. Certified analytical reports and chain-of-custody documentation for the current quarter are presented in Attachment C.

Table 2
Laboratory Analytical Results for Groundwater
Alaska Gasoline, Oakland

	TPHg	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*TAME*	*TBA*
MW-1R								
November 17, 2005	2,500	66	290	75	290	1,300	110	1,600
February 8, 2006	3,300	100	310	86	470	1,400	130	1,400

May 5, 2006	3,400	170	350	97	550	1,100	100	2,400
August 18, 2006	5,800	190	1,000	230	1,000	490	36	2,900
December 1, 2006	410	1.7	6.3	1.2	47	100	4.7	100

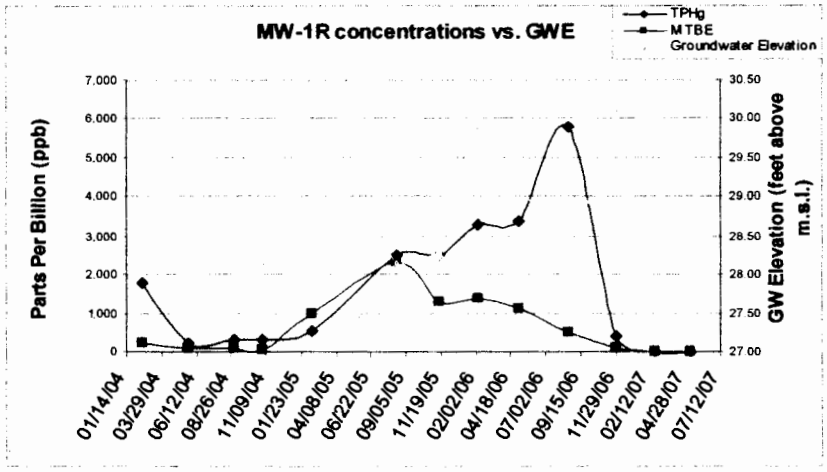
Table 2 (*continued*)

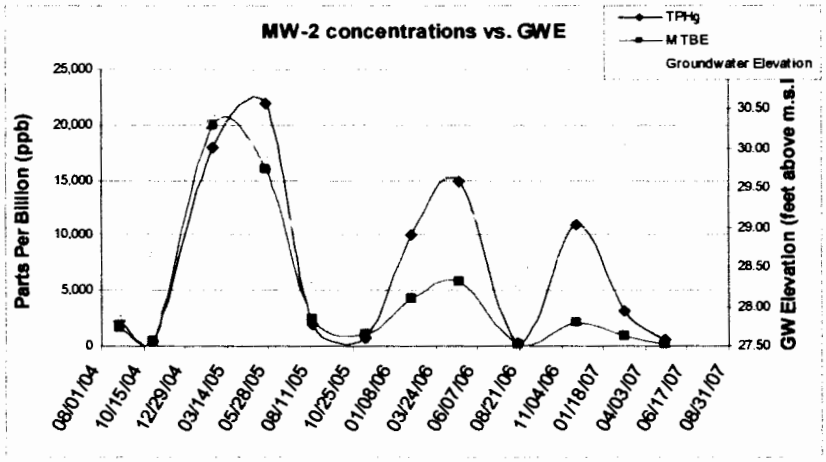
	TPHg	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*TAME*	*TBA*
February 23, 2007	ND	ND	0.51	ND	1.4	2.6	ND	ND
May 10, 2007	ND	ND	ND	ND	2.0	5.9	ND	ND
MW-2								
November 17, 2005	760	19	0.64	15	13	1000	26	810
February 8, 2006	10,000	1,500	8	660	380	4,300	120	2,800
May 5, 2006	15,000	1,800	ND	1,200	1,200	5,800	150	4,300
August 18, 2006	360	11	ND	13	9.7	160	4.6	600
December 1, 2006	11,000	1,000	ND	990	910	2,100	87	2,000
February 23, 2007	3,200	210	ND	270	85	900	33	1,400
May 10, 2007	590	31	ND	39	22	200	5.9	250
MW-3								
November 17, 2005	200,000	2,400	ND	ND	ND	580,000	24,000	49,000
February 8, 2006	470,000	3,800	660	ND	790	490,000	26,000	49,000
May 5, 2006	400,000	3,300	ND	ND	ND	590,000	21,000	86,000
August 18, 2006	310,000	1,800	ND	ND	ND	440,000	23,000	79,000
December 1, 2006	270,000*	ND	ND	ND	ND	290,000	11,000	90,000
February 23, 2007	220,000*	ND	ND	ND	ND	260,000	15,000	33,000
May 10, 2007	140,000*	ND	ND	ND	ND	180,000	7,100	80,000
MW-5								
November 17, 2005	71	0.81	ND	1.1	ND	1.4	ND	ND
February 8, 2006	50	ND	ND	ND	ND	1	ND	ND
May 5, 2006	ND	ND	ND	ND	ND	0.93	ND	ND
August 18, 2006	ND	ND	ND	ND	ND	1	ND	ND
December 1, 2006	ND	0.69	ND	ND	0.52	0.97	ND	ND
February 23, 2007	73	ND	ND	ND	ND	1.7	ND	ND
May 10, 2007	ND	ND	ND	ND	ND	1.5	ND	ND
MW-6								
November 17, 2005	1,100	30	ND	4	9	2,400	190	9,500
February 8, 2006	3,600	220	43	66	160	2,700	180	7,800
May 5, 2006	1,600	130	21	37	65	1,400	53	3,100
August 18, 2006	270	27	ND	3	4	240	11	2,400
December 1, 2006	1,700	ND	ND	ND	ND	1,700	92	800
February 23, 2007	ND	ND	ND	ND	ND	15	ND	ND
May 10, 2007	ND	3.0	ND	ND	1.9	26	2	48
EX-1 (Only reported values for EX-1)								
February 19-20, 2004	120,000	9,500	4,300	840	3,900	150,000	*NA*	*NA*

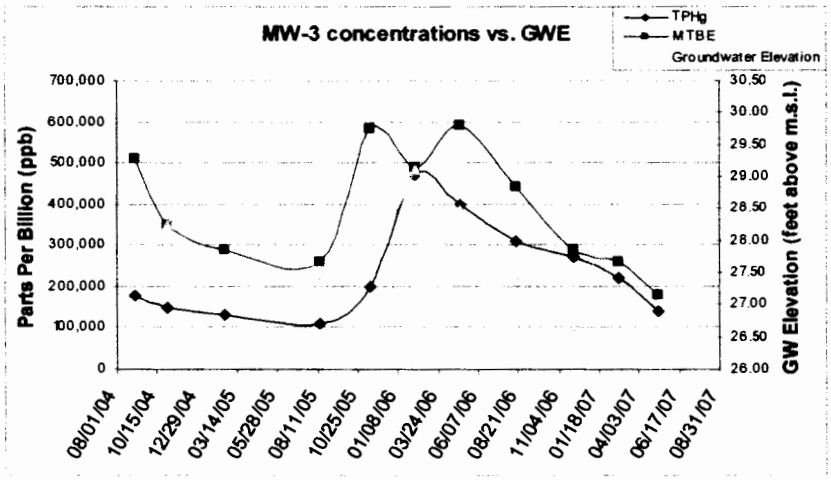
* - Gasoline Value due to MTBE
- All reported values in parts per billion (ppb)
- NA = not analyzed
- ND = below laboratory detection limits
- NS = not sampled

No DIPE, ETBE, EDB, or 1,2-DCA was reported in groundwater samples during the May 2007 sampling event. Ethanol and methanol were not detected in any of the groundwater samples during the May 2004 monitoring event and are no longer being included in the laboratory analysis. Concentration trends are shown for several constituents in Plates 1 & 2.

Plate 1: TPHg and MTBE Concentration Trends for Selected Wells and Analytes







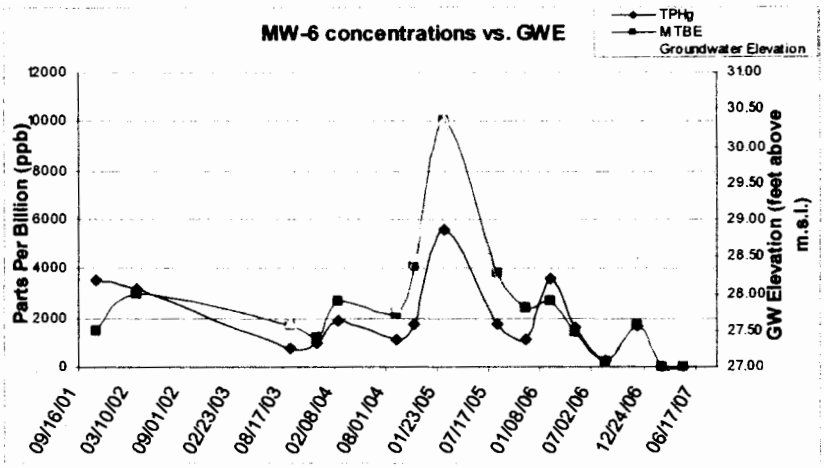
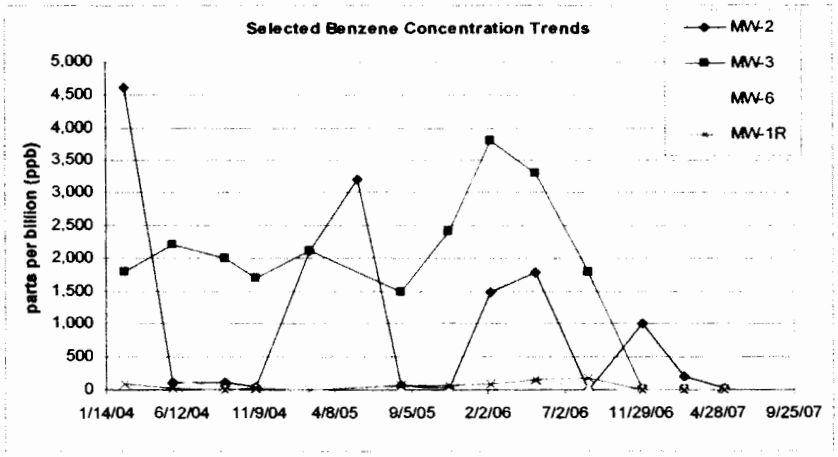


Plate 2: Selected Benzene Concentration Trends



SOIL VAPOR EXTRACTION

The soil vapor extraction system (SVES) has been operating onsite since August 31, 2006. The SVES originally consisted of a thermal oxidizer equipped with a blower capable of producing up to 250 cubic feet per minute air flow and vacuum of up to 10 inches of mercury. The system was modified to operate in catalytic mode due to low influent hydrocarbon concentrations. SVES activities halted from January 31, 2007 to February 21, 2007 while notifying the Bay Area Air Quality Management District (BAAQMD) of system modifications and startup. SVES activities also halted from April 30, 2007 to May 25, 2007 due to system retrofitting associated with a dual phase extraction test. Aside from those time periods mentioned, system down-time has been short and infrequent, usually related to water production issues. Table 3 presents a summary of the unit's operating and destruction efficiencies and amount of contaminants removed and discharged based on periodic monitoring of flow rates and laboratory results from samples collected.

Table 3										
Alaska Gas SVES Destruction and Removal Efficiency (Catalytic Mode)										
Date	Hour Meter	Hours of Operation	Influent (ppm)	Effluent (ppm)	Air Flow (cfm)	Destruciton Efficiency (%)	Effluent Release (lbs/day)	VOCs Removed (lbs/day)	Total VOCs Removed (lbs)	Percent Operating
2/21/07	3420.4	0	6.1	0	30.8	100.00	0.000	0.069112	0.000000	0
2/21/07	3421.4	1	0.7	0		100.00	0.000	0.000000	0.000000	100
2/22/07	3445.8	24.4	0.5	0	21.3	100.00	0.000	0.003918	0.003983	102
2/27/07	3563.5	117.7	1.6	0.15	40.5	90.63	0.002	0.023837	0.116899	98
3/21/07	4092.9	529.4	0.3	0	44.2	100.00	0.000	0.004878	0.107594	92
3/29/07	4283.8	190.9	0.4	0	35.2	100	0.000	0.005179	0.041197	99
4/30/07	5046.6	762.8	0.4	0	35.2	100	0.000	0.005179	0.164617	103
	***System shutdown 4/30/07 for DPE Test									
	***System restarted 5/25/07, System hours for 5/25 back calculated from 5/29									
5/25/07	5056.2									
5/29/07	5152.2	96	220	0.5	55	99.77	0.010	4.450990	17.803963	100
6/08/07	5392.4	240.2	132	0	79	100.00	0.000	3.835945	38.391413	111
6/18/07	5635.6	243.2	210	0.62	73	99.70	0.017	5.639148	57.143363	101

ppmV – parts per million by Volume
cfm – cubic feet per minute
lbs - pounds

According to a combination of field data and laboratory analytical data, since the oxidizer was restarted in catalytic mode, approximately 113.77 lbs or 18 gallons of product have been removed by the system. Approximately 840.23 lbs of hydrocarbons or 136 gallons of product have been removed since soil vapor extraction began in August 2006. Destruction efficiency has been roughly 99.0 % with no more than 0.170 pounds of hydrocarbon product emitted per day to the atmosphere. The relatively low air flow concentrations measured during SVES operation are likely due to the exceptionally tight soil conditions inherent of the pervasive clays at the site.

CONCLUSIONS AND RECOMMENDATIONS

Relatively low concentrations exist in monitoring wells MW-5 and MW-6, with moderate concentrations present this quarter in MW-5. Concentrations in MW-6 have historically tended to correspond proportionately to the rise and fall of groundwater elevations.

Wells MW-2 and MW-3 were reported as impacted with fuel constituents to varying degrees. The highest reported concentrations this quarter were from well MW-3, which has historically contained the highest contaminant concentration, aside from wells with free product. High concentrations of TAME and TBA exist in MW-3, with relatively moderate concentrations of TAME and TBA also present in MW-2. Concentrations in MW-2 also tend to correspond proportionately to groundwater rise and fall. Relatively high concentrations of petroleum hydrocarbons remain in soil and groundwater beneath the subject site. This is evident by the fact that monitoring well MW-4 continues to contain free product. Isoconcentration maps for TPHg and MTBE are attached as Figures 3 and 4, respectively.

HerSchy continues to work towards obtaining off-site access agreements and permits in an effort to further delineate the down-gradient extent of the hydrocarbon plume. After several phone conversations with Mr. Paul Wang (private owner of the lot at southeast corner of Marshall St. and 62nd Street in Oakland), a request for access to the property was sent on June 13, 2007. We are awaiting his response to this letter. We have been in contact with Ms. Marianne Foster of the Oakland Housing Authority (OHA) about gaining access to the property at 1126 62nd street for direct push soil sampling. We are preparing an access agreement for the proposed soil sampling at the aforementioned property for OHA review. HerSchy has submitted a traffic control plan for review as another step in the permitting process for drilling in the city right-of-way. We are currently waiting for a response so that we can move forward in the permitting process. Ideally, we would like to couple the three areas of drilling (city right-of-way, OHA property, and Mr. Wang's property) into one drilling mobilization. If we continue to encounter resistance to our proposals, we will likely move forward as approvals for work are received in order to try and eliminate any further delays. HerSchy anticipates that a surety bond for the two permanent wells along Marshall Street will be in place within 30 days; permitting of the wells will then move forward.

Since the time of the initial workplan for direct push soil borings (November 6, 2006) and subsequent approval with comments by your office (November 21, 2006), several of the proposed boring locations have become infeasible due to building locations and to some degree continual permitting issues. A site plan depicting previous proposed boring locations and modified locations is attached as Figure 5. There is no access to install DP-7 as recommended by your office, and DP-3 and DP-5 are an estimated location as that site is undergoing construction. Direction push location DP-6 will be installed within the city right-of-way, and requires no agreements with property owners. As such, HerSchy will attempt to permit the proposed locations of DP-2, DP-3, and DP-4 within the city right-of-way, which would be only 2 or 3 feet from the present proposed locations. The current locations would require property owner agreements; this line will be followed simultaneously in the event obtaining private owner agreements should occur prior to completing the arrangements for the city-right-of way.

On May 7, 2007 a dual phase extraction (DPE) pilot test was begun and abruptly terminated due to the inability of the on-site unit to handle the unexpectedly high temperatures outside the operating range for a catalytic oxidizer. HerSchy will utilize a mobile DPE unit equipped with a 20 HP liquid ring pump and a thermal oxidizer capable of handling both the workload of drawing groundwater up, and the high temperatures. Such a system would also exert a higher force on the tight clay soils. HerSchy will conduct another DPE test using the liquid ring pump. The DPE test will include monitoring observation wells for induced vacuum, as was done in the previous vapor extraction test and dual phase extraction test, to assess radius-of-influence of vapor extraction. In addition to EX-1, monitoring wells MW-3 and MW-4 will also be included during the extraction test, as MW-4 contains floating product, and MW-3 contains a high level of dissolved contaminants.

HerSchy is preparing an alternative/enhancement to the current remediation system. Because flow rates are slow through clay, and soil contamination with a considerable smear zone exists in the southwestern portion of the site (the TPHg concentration in soil at 5 feet during sampling of MW-4 was reported at 25,000 ppm), additional work is required to remediate this site. HerSchy will be proposing limited excavation to remove much of the secondary source (smear zone and contaminated soil) so that groundwater would not continue to be impacted by a potential on-going source. Additionally, HerSchy will recommend installing a trench system in which floating product would be directed to a single point for extraction. It was previously demonstrated that a four inch well at this site, containing floating product, did not have enough surface area to produce more than three gallons every three to four months. With a trench, a great deal larger surface area should significantly enhance the removal rate of floating product. Although water levels were relatively high during the May sampling event, HerSchy recommends conducting the DPE test after the excavation and trench installation are complete to test under a better recharge condition, and during a period in which groundwater elevations return to relatively high levels to avoid extending a smear zone. This site does not exhibit a steady seasonal trend; historically, seasonal highs and lows do not correspond well with a given month or season. Consequently, the exact timing of the above work would be contingent on groundwater elevation conditions, in addition to obtaining all the necessary approvals. However, we would anticipate performing the excavation work as soon as groundwater returns to a yearly low.

While influent concentrations to the SVES were approximately 3,000 parts per million by volume (ppmv) during system startup in September, 2006, concentrations are currently at a little more than 200 ppmv. This concentration includes the vapor extraction of wells containing floating product. Alternative active remediation options, including limited excavation and a trench system for collecting and removing floating product, are currently being developed and will be submitted shortly.

In the correspondence from your office dated June 12, 2007, technical comment number three addressed the issues of sampling and observations from wells EX-1 and MW-4. The air sparge line that was attached to EX-1 was removed on April 30, 2007. Although EX-1 was plumbed into the air sparge system, it was never included into the air sparging rotation. Product thickness was measured in both wells in this round of monitoring and sampling (see groundwater conditions above). A comprehensive table of historical groundwater data is included as Attachment D.

In the *Results of February 2007 Quarterly Groundwater Monitoring* report, HerSchy reported that monitoring well MW-1R in the northwest corner of the property had been damaged and that further assessment of the integrity of the well would be needed. After further investigation into this matter, it has been determined that well MW-1R will need to be decommissioned and replaced. HerSchy is looking into the feasibility of coupling the decommissioning of MW-1R and subsequent re-installation with the proposed direct push borings in the city right-of-way as a cost saving means. If it appears that there will

be further delays in working in the city right-of-way, HerSchy will plan to replace the well in its own dedicated drilling event.

WORK PLAN FOR REPLACEMENT OF MW-1R

Drilling

One boring will be drilled at the location of existing well MW-1R, and converted to a monitoring well. Monitoring well MW-1R, now compromised, will be overdrilled using ten-inch augers to a depth equaling total depth of the MW-1R boring, approximately 25 feet. Every attempt will be made to utilize a drill rig capable of performing both direct push work and hollow stem auger work with ten-inch auger. This type of rig would allow us to couple the previously approved direct push work with this well replacement into a single drilling mobilization. Augers will be steam cleaned prior to arriving on site.

Drill cuttings will be stored in UN-approved drums for appropriate disposal. Given that the drilling is overdrilling of an existing well, no soil samples or logging will be conducted, although a geologist working under the direction of a California Professional Geologist will be supervising the work, including well installation.

Well Construction Details

The replacement monitoring well will be constructed similar to that of MW-1R. Well construction and annular materials will be installed through the hollow-stem augers. The monitoring well will be constructed with two-inch schedule 40 PVC well casing with screw joints. A 20-foot long screened interval with 0.020-inch factory slotted screen will be placed at a depth of 24 feet. Blank casing will extend from the top of the screened interval to the ground surface. Annular materials will consist of 16 mesh Monterey sand or coarser materials from the bottom of the boring to approximately one foot above the screened interval. This will be followed by an approximate two-foot bentonite seal, followed by a bentonite-type II cement grout, or other suitable grout, to approximately 1.5 to 2 feet below surface grade. All wells will be concreted flush with surface grade with locking well caps in traffic-rated utility boxes.

Well Development and Groundwater Sampling Procedures

Upon completion of well installation, the newly installed well will be allowed to sit undisturbed for 48 hours. The well will be subsequently surveyed, by a licensed surveyor, to the nearest 0.01 feet. HerSchy Environmental personnel will then determine the depth to groundwater, measured to the nearest 0.01 feet, using an electric sounder. After each well is measured for depth to groundwater, it will be developed by pumping and surging until the discharge is relatively clear and free of sand. Purge water will be stored in the on-site knock out tank to the vapor extraction system, and hauled off when full.

Physical characteristics (temperature, electrical conductivity, and pH) will be measured at the initiation of well development activities, and again at the end of development.

Report Preparation

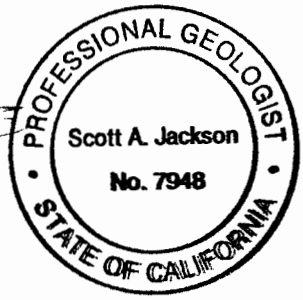
A report will be prepared describing methods used, field activities, and the results of the investigation. The report will contain: maps indicating pertinent civic features and well locations; boring logs and well construction details. Depending on when this work is completed relative to routine quarterly monitoring, this report may be incorporated in a future quarterly monitoring report. The report will be certified by a California Professional Geologist.

Schedule

Drilling and well installation will require one half day after obtaining permits and scheduling. Ideally, the replacement of MW-1R will coincide with the installation of direct push borings to reduce mobilization costs. The final report will be completed within one month of drilling activities or receipt of quarterly monitoring laboratory analytical results, depending on whether its incorporated in the quarterly report or not.

We appreciate the opportunity to work with you on this matter. Please contact Reijo Ratilainen (559) 760-0037 or Scott Jackson (559) 641-7320 with any questions or for additional information.

Sincerely,
HerSchy Environmental, Inc.



Reijo Ratilainen
Project Geologist

Scott Jackson, P.G. #7948
Senior Project Geologist

Figures
1 - Site Plan
2 - Groundwater Elevation Diagram
3 - TPHg Isoconcentration Diagram
4 - MTBE Isoconcentration Diagram
5 - Site Plan with Proposed Direct Push Soil Boring Locations

Attachments
A - Groundwater Field Sampling Data Sheets
B - SVES Field Monitoring Data
C - Certified Analytical Reports for Groundwater Sampling
D - Historical Groundwater Data

cc: Mr. Pritpaul Sappal
Mr. Hernan Gomez, Oakland Fire Services Agency
Ms. Alyce Sandbach, Deputy District Attorney

HerSchy Environmental, Inc.

Environmental Consulting and Remediation

P. O. Box 229
Bass Lake, California 93604-0229
Tel. (559) 641-7320, Fax (559) 641-7340

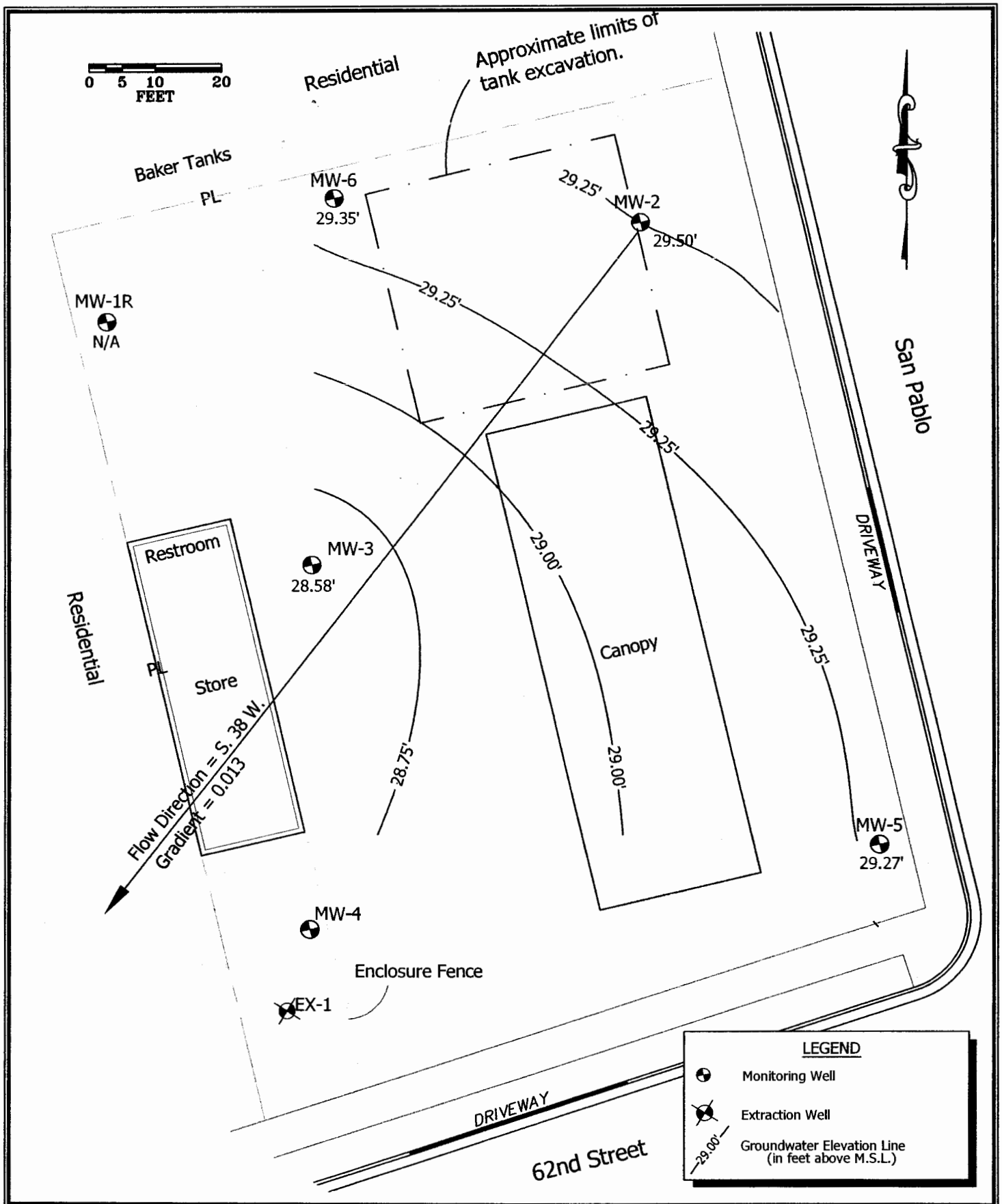
SITE LOCATION MAP

ALASKA GASOLINE COMPANY

6211 San Pablo Avenue, Oakland, California

DATE:	August 2005
FILE NO.:	A51.01
DRAWN BY:	WEA

FIGURE 1



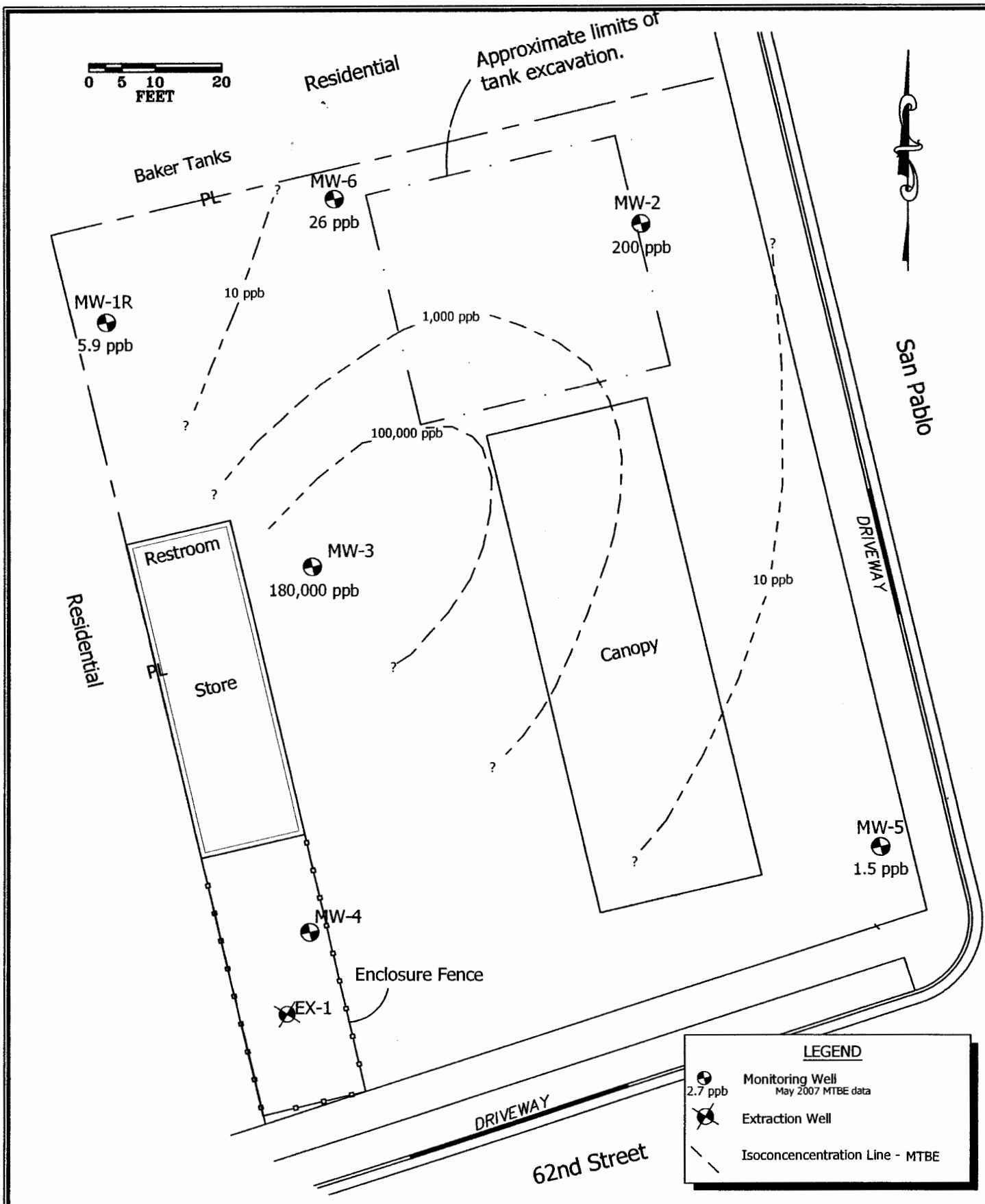
HerSchy Environmental, Inc.
Environmental Consulting and Remediation

P. O. Box 229
Bass Lake, California 93604-0229
Tel. (559) 641-7320, Fax (559) 641-7340

GROUNDWATER CONDITIONS
May 2007
ALASKA GASOLINE COMPANY
6211 San Pablo Avenue, Oakland, California

DATE: May 10, 2007
FILE NO.: A51-01
DRAWN BY: RER

FIGURE 2

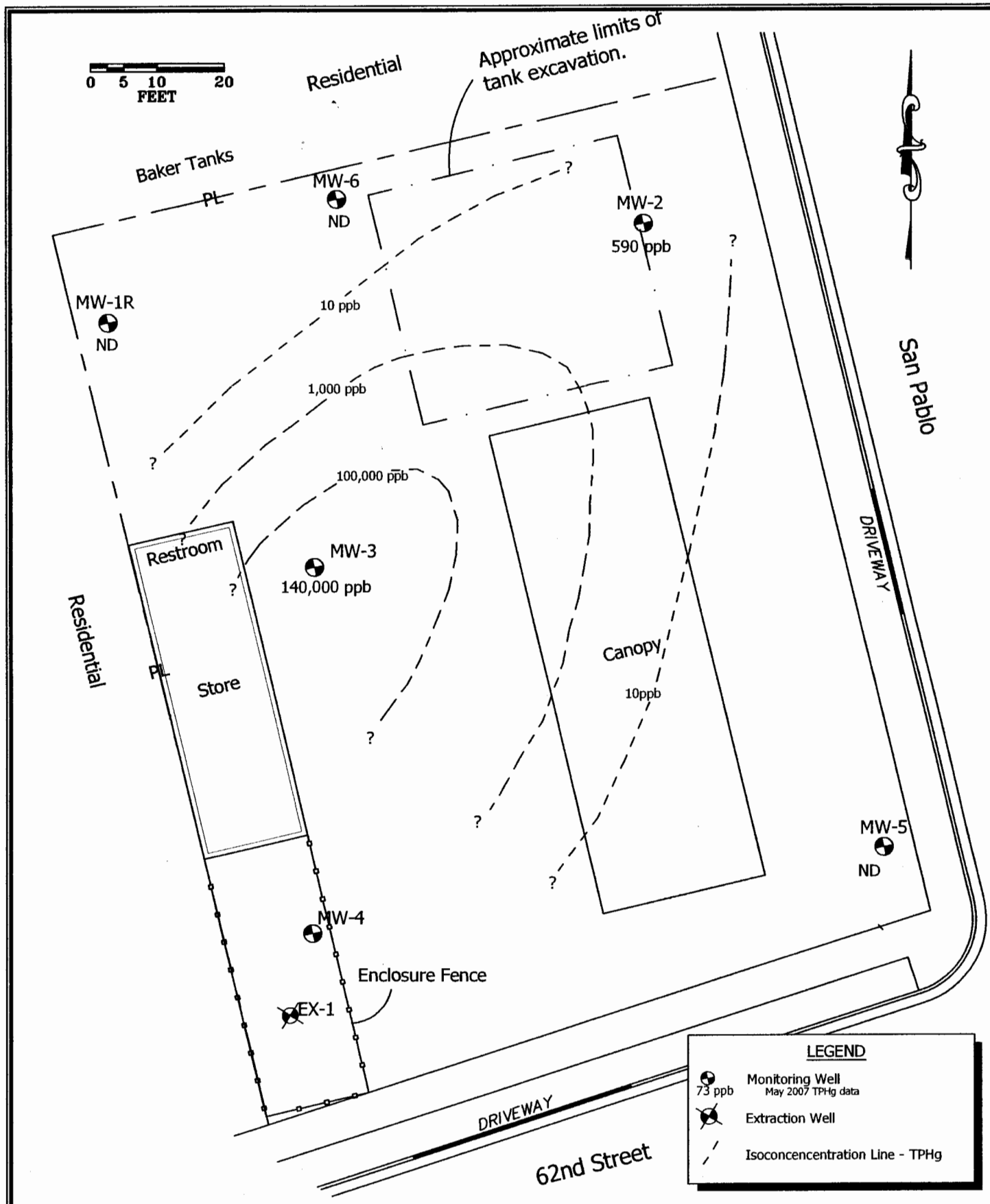


HerSchy Environmental, Inc.
Environmental Consulting and Remediation
P. O. Box 229
Bass Lake, California 93604-0229
Tel. (559) 641-7320, Fax (559) 641-7340

Isoconcentration Map - MTBE
ALASKA GASOLINE COMPANY
6211 San Pablo Avenue, Oakland, California

DATE: May 10, 2007
FILE NO.: A51-01
DRAWN BY: RER

FIGURE 3



HerSchy Environmental, Inc.
Environmental Consulting and Remediation
P. O. Box 229
Bass Lake, California 93604-0229
Tel. (559) 641-7320, Fax (559) 641-7340

Isoconcentration Map - TPHg

ALASKA GASOLINE COMPANY

6211 San Pablo Avenue, Oakland, California

DATE: May 10, 2007

FILE NO.: A51-01

DRAWN BY: RER

FIGURE 4

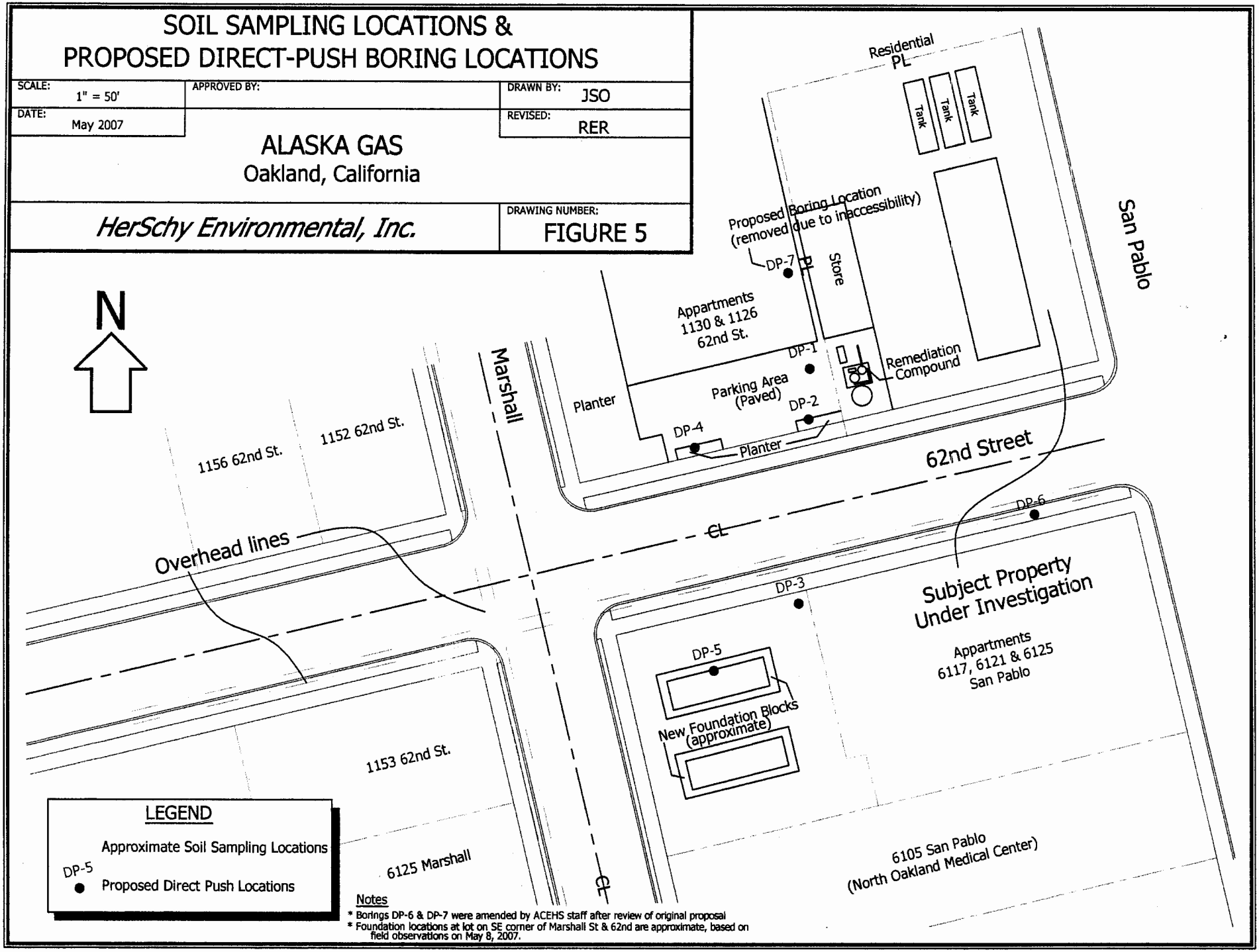
SOIL SAMPLING LOCATIONS & PROPOSED DIRECT-PUSH BORING LOCATIONS

SCALE: 1" = 50'	APPROVED BY:	DRAWN BY: JSO
DATE: May 2007		REVISED: RER

ALASKA GAS
Oakland, California

HerSchy Environmental, Inc.

DRAWING NUMBER: FIGURE 5



LEGEND

Approximate Soil Sampling Locations

DP-5 ● Proposed Direct Push Locations

Notes

* Borings DP-6 & DP-7 were amended by ACEHS staff after review of original proposal
* Foundation locations at lot on SE corner of Marshall St & 62nd are approximate, based on field observations on May 8, 2007.

ATTACHMENT A

Groundwater Field Sampling Data Sheets

HerSchy Environmental

WATER SAMPLE FIELD DATA SHEET

Client Name: ALASKA GAS Location: OAKLAND

Purged By: WEST Sampled by: WEST

Sample ID: MW-1R Type: Groundwater X Surface Water ____ Other ____

Casing Diameter (inches): 2 X 3 ____ 4 ____ 5 ____ 6 ____ Other ____

Casing Elevation (feet/MSL): 36.69 Volume in Casing (gal.): 2.0

Depth of Well (feet): 19.11 Calculate Purge Volume (gal.): 6.2

Depth to Water (feet): 6.39 Actual Purge Volume (gal.): 6.2+

Date Purged: 05-10-07 Date Sampled: 05-10-07 0713

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
0658	✓	7.17	374	60.7	Cloudy
0710	6.2	6.98	407	62.4	CLEAR

Sheen Y/N?: N Odor: NONE

Purging Equipment: WATERRA

Sampling Equipment: WATERRA

Remarks: ____

Sampler's Signature: John S. West

/Water Sample Sheet.wpd

HerSchy Environmental

WATER SAMPLE FIELD DATA SHEET

Client Name: ALASKA GAS Location: OAKLAND

Purged By: WEST Sampled by: WEST

Sample ID: MW-2 Type: Groundwater X Surface Water ____ Other ____

Casing Diameter (inches): 2 X 3 ____ 4 ____ 5 ____ 6 ____ Other ____

Casing Elevation (feet/MSL): 36.33 Volume in Casing (gal.): 2.3

Depth of Well (feet): 20.90 Calculate Purge Volume (gal.): 6.9

Depth to Water (feet): 6.83 Actual Purge Volume (gal.): 7+

Date Purged: 05-10-07 Date Sampled: 05-10-07 0801

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
0744	—	6.90	679	63.9	CLOUDY
0758	7	6.94	680	63.9	LESS CLOUDY

Sheen Y/N?: N Odor: ~~NONE~~ SLIGHT PETROLEUM

Purging Equipment: WATERRA

Sampling Equipment: WATERRA

Remarks: ____

Sampler's Signature: John S. West

/Water Sample Sheet.wpd

HerSchy Environmental

WATER SAMPLE FIELD DATA SHEET

Client Name: ALASKA GAS Location: OAKLAND

Purged By: WEST Sampled by: WEST

Sample ID: MW-3 Type: Groundwater X Surface Water ____ Other ____

Casing Diameter (inches): 2 X 3 ____ 4 ____ 5 ____ 6 ____ Other ____

Casing Elevation (feet/MSL): 33.12 Volume in Casing (gal.): 2.4

Depth of Well (feet): 21.20 Calculate Purge Volume (gal.): 7.2

Depth to Water (feet): 6.54 Actual Purge Volume (gal.): 7.2+

Date Purged: 05-10-07 Date Sampled: 05-10-07 0648

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
0635	-	6.83	718	61.5	Cloudy
0645	7.2	6.77	623	64.3	Cloudy

Sheen Y/N?: N Odor: PETROLEUM

Purging Equipment: WATERRA

Sampling Equipment: WATERRA

Remarks: ____

Sampler's Signature: John S. West

/Water Sample Sheet.wpd

HerSchy Environmental

WATER SAMPLE FIELD DATA SHEET

Client Name: ALASKA GAS Location: OAKLAND

Purged By: WEST Sampled by: WEST

Sample ID: MW-5 Type: Groundwater X Surface Water ____ Other ____

Casing Diameter (inches): 2 X 3 ____ 4 ____ 5 ____ 6 ____ Other ____

Casing Elevation (feet/MSL): 35.17 Volume in Casing (gal.): 3.1

Depth of Well (feet): 24.90 Calculate Purge Volume (gal.): 9.3

Depth to Water (feet): 5.90 Actual Purge Volume (gal.): 9.3+

Date Purged: 05-10-07 Date Sampled: 05-10-07 0828

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
0810	—	6.93	691	62.0	Cloudy
0825	9.3	6.91	680	64.1	Cloudy

Sheen Y/N?: N Odor: NONE

Purging Equipment: WATERRA

Sampling Equipment: WATERRA

Remarks: ____

Sampler's Signature: John S. West

/Water Sample Sheet.wpd

HerSchy Environmental

WATER SAMPLE FIELD DATA SHEET

Client Name: ALASKA GAS Location: OAKLAND

Purged By: WEST Sampled by: WEST

Sample ID: MW-6 Type: Groundwater X Surface Water ____ Other ____

Casing Diameter (inches): 2 X 3 ____ 4 ____ 5 ____ 6 ____ Other ____

Casing Elevation (feet/MSL): 36.07 Volume in Casing (gal.): 2.7

Depth of Well (feet): 23.10 Calculate Purge Volume (gal.): 8.0

Depth to Water (feet): 6.72 Actual Purge Volume (gal.): 8.0+

Date Purged: 05-10-07 Date Sampled: 05-10-07 0735

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
0722	~	7.03	517	63.6	Cloudy
0733	8	6.96	535	64.0	Less Cloudy

Sheen Y/N?: N Odor: NONE

Purging Equipment: WATERRA

Sampling Equipment: WATERRA

Remarks: ____

Sampler's Signature: John S. West

/Water Sample Sheet.wpd

ATTACHMENT B

SVES Field Monitoring Data

Alaska Gas Field Data Sheet

Site Address: **6211 San Pablo Ave., Oakland, CA 94608**

Date	Total Hours	Hours	Flow - pitot (#3) (scfm)	Flow - Manifold (scfm)	Pressure ("-water)	Recirc Valve (# turns open)	SVE Wells operating	Air Sparge system operation	Influent (ppm)	Effluent (ppm)	Water in Tank (approx. gal's)	Temp. Cont.(F)	Dilution Cont. (F)	High Limit (F)	Propane (% full)
**** Note: system down from 1/30/2007 evening until catalytic system start on 2/21/2007 *****															
2/21/2007	3420.4	n/m	31	30.8	n/m	full open	VE-1,2,3,4,5,6,7,12	AS-1,2,4,5	6.1	0.0	220				
	3421.4	n/m	n/m	n/m	n/m	full open	VE-1,2,3,4,5,6,7,12	AS-1,2,4,5	0.7	0.0	220	1262	1002	1001	85
2/22/2007	3445.8	25.3	22	21.3	n/m	full open	VE-1,2,3,4,5,6,7,12	AS-1,2,4,5	0.5	0.0	220	1391	1125	1122	78
2/23/2007	3472.7	52.2	26	n/m	n/m	full open	VE-1,2,3,4,5,6,7,12	off	n/m	n/m	220	1341	1117	1113	66
**** system efficiency tests ****															
(1) with all wells open & recirc valve full open															
			n/m	29.2	-31										
(2) with VE-1,2,3,4,5,6,7,12 open & recirc full open															
			n/m	29.3	-31										
(3) with VE-1,2,3,4,5,6,7,12 open & recirc closed 6 turns from full open															
			49	52.5	-60										
(4) with VE-1,2,3 open & recirc closed 5 turns from full open (attempt to dewater short screen intervals)															
*prior to close															
			41	42.5	-43										
*after close															
			19	~10	-56	(H20 in influent line)									
(5) with VE-1,2 open and recirc valve closed 6 turns from full open															
			15	over	-88										
*after 8 minutes			n/m	n/m	-90	--> water being produced slowly (~0.5 cm/5 minutes in visible influent water pipe)									
****System returned to pre-efficiency test status - VE-1,2,3,4,5,6,7,12 open & recirc full open															
2/27/2007	3563.4	143	39	40.5	-46	full open	VE-1,2,3,4,5,6,7,12	off	n/m *	n/m *	220	992	878	878	72
3/21/2007	4092.9	672.4	--	44.2	~43	6 turns back from full open	All open	off	0.3	0.1	220	953	850	849	72
****System efficiency tests****															
(1) w/wells 1,2,3,4,5,6 open only & recirc @ 6turns closed from full closed															
			0 to -1 (?)	16.2	~55				0.0	n/m		1088	--	--	--
-after 5 minutes, recirc closed 1/2 turn more after readings taken															
			13	--	~80							1098	--	--	--
-after 15 minutes															
			25	--	~90							1048	--	--	--
* Notes: aprroximately 35 gallons of water produced; VE-12 appears to be in relatively loose soil as pressure does not hold when isolated															
(2) w.wells 1,2,3,4,5,6,11 open & recirc closed 6.25 turns from full open															
			45	--	~80							950	--	--	--

Alaska Gas Field Data Sheet (*Continued*)

Site Address: **6211 San Pablo Ave., Oakland, CA 94608**

Date	Total Hours	Hours	Flow - pitot (#3) (scfm)	Flow - Manifold (scfm)	Pressure ("-water)	Recirc Valve (# turns open)	SVE Wells operating	Air Sparge system operation	Influent (ppm)	Effluent (ppm)	Water in Tank (approx. gal's)	Temp. Cont.(F)	Dilution Cont. (F)	High Limit.(F)	Propane (% full)
3/26/2007	4211.9	791.5	35	--	~80	-5.5	VE-1,2,3,4,5,6,11		--	--	990	1086	947	946	--
	* recirculation valve closed back to 5.5 turns closed from full open														
			30	29.6	~60										
3/29/2007	4283.8	863.3	~15	21.8	~56	-5.5	VE-1,2,3,4,5,6,11	AS-1,4,5	0.0	n/m	0	1145	987	986	79
	* 1,100 gallons of water removed in the am, prior to site readings														
	* Air Sparge system turned on, test AS-1 w/VE-1,2,3,4,5,6,7,13 open (AS-1 @ 5 scfm)														
	--	--	29	31.4	~85	-6.5			0.0	n/m	--	1036	921	921	
	**** On site leave, AS-1,3,4 set on 45 min on cycle from 7am to 8:30pm														
	--	--	37	35.2	~84	-6.5	VE-1,2,3,4,5,6,7,13		0.4	n/m	--	1015	899	899	79
4/18/2007	4763.2	1342.8	31	--	--	--	VE-1,2,3,4,5,6,7,13	AS-1,4,5	--	--	1485	1165	999	--	--
	4736.7		20	--	--	full open	all open	off	--	--		1171	981	979	72
4/19/2007	4786.1	1365.6	30	--	--	--	all open	off	--	--	1485	1088	945	--	81
4/30/2007	5046.6	1626.2	33	--	--	full open	all open	off	--	--	0	1147	994	993	
	* System shutdown to prepare for dual phase extraction test														
	* plumb system to conduct DPE test on EX-1, disconnect all other VE wells from system.														
5/25/2007	*system hooked back up to Vapor Extraction Wells, also to include MW-4 and EX-1														
5/29/2007	5152.2	1731.8	55	--	--	~6.0	all open	off	220	0.5	0	960	885	886	
	--	--	55	83	--	~6	all open	off	116	0.2	0	956	895	894	--
	***TEST														
	w/all wells open - flow at 53.5 cfm at manifold														
	w/wells 10,11,12,13 closed & recirc full open														
									450	--	--	1200	938	935	
	on leave from site PID influent readings holding steady @ ~250 ppm														
6/1/2007	5227.6	1807.2	37	46.1	--	full open	all open	off	104	--	--	1140	1000	999	
			56	80	--	~6.0	all open	off	157	0	--	dropping...			
	*Restart AS system - after ~5-10 minutes blower motor appears to be malfunctioning														
	- on leave -->		57	--	--	~6.0	all open	off	150	0	--	945	917	918	
6/4/2007	5297.1	1876.6	61	--	--	~6.0	all open	off	135	0	--	909	865	865	82
	Individual line sampling on EX-1 & MW-4, with regular vacuum														

Alaska Gas Field Data Sheet (*Continued*)

Site Address: **6211 San Pablo Ave., Oakland, CA 94608**

Date	Total Hours	Hours	Flow - pitot (#3) (scfm)	Flow - Manifold (scfm)	Pressure ("-water)	Recirc Valve (# turns open)	SVE Wells operating	Air Sparge system operation	Influent (ppm)	Effluent (ppm)	Water in Tank (approx. gal's)	Temp. Cont.(F)	Dilution Cont. (F)	High Limit (F)	Propane (% full)
			EX-1 @ 645ppm MW-4 @ 610 ppm												
	Testing														
	w/dilution control manually opened to approx 85%(normally at 95%) to increase airflow to burner														
				pitot reads 87 cfm											
				manifold reads 60 cfm											
	w/dilution control at 90%														
				pitot reads 73 cfm											
				mainfold reads 59.5 cfm											
	sampling of influent points gives														
				influent (post dilution) @ 86 ppm											
				influent (@ manifold, pre-blower) @ 88 ppm											
	5298.7	1878.2	75	--	--	~6.0	all open	off	124	--	--	786	760	759	--
	***Dilution control held at 90% for this reading														
	Meet Rob Larson of Mako Industries to do efficiency tests on system.														
	* note - with access caps to EX-1 and MW-4 cracked to "bleed in" air, PID concentrations spike significantly.														
	-possibly due to residual product in transfer lines. Or combination of slight increase in airflow from highly contaminated wells moving more vapor phase VOC's														
6/6/2007	5348.2	1927.8	57	77	--	--	all open	off	130	0	--	877	819	819	68
6/8/2007	5392.4	1972	59	79	--	~6.0	all open	restarted AS-1,4,5	132	0	--	895	835	832	78%

ATTACHMENT C

Certified Analytical Reports for Groundwater Sampling

CASTLE ANALYTICAL LABORATORY

Environmental Testing Services
Certificate # 2480
2333 Shuttle Drive, Atwater, CA 95301
Phone: (209) 384-2930
Fax: (209) 384-1507

HerSchy Environmental	Client Project ID: Alaska Gas - Oakland	Sampled: 05-10-07
P.O. Box 229	Reference Number: 10065	Received: 05-10-07
Bass Lake, CA 93604	Sample Description: Water	Extracted: 05-11-07
Attn: Red Ratilainen	Sample Prep/Analysis Method: EPA 5030/8015, 8021	Analyzed: 05-11-07
	Lab Numbers: 10065-1W, 2W, 3W, 4W, 5W	Reported: 05-22-07

TOTAL PETROLEUM HYDROCARBONS - GASOLINE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT (ug/L)	SAMPLE ID MW-1R (ug/L)	SAMPLE ID MW-2 (ug/L)	SAMPLE ID MW-3 (ug/L)	SAMPLE ID MW-5 (ug/L)	SAMPLE ID MW-6 (ug/L)
MTBE	0.50	4.6	200	160000	1.5	25
BENZENE	0.50	ND	31	ND	ND	3.0
TOLUENE	0.50	ND	ND	ND	ND	ND
ETHYL BENZENE	0.50	ND	39	ND	ND	ND
TOTAL XYLENES	0.50	2.0	22	ND	ND	1.9
GASOLINE RANGE HYDROCARBONS	50	ND	590	140000*	ND	ND
Report Limit Multiplication Factor:		1	1	500	1	1
Report Limit Multiplication Factor for MTBE only:			100	10000		

**Gasoline value due to MTBE.*

Surrogate % Recovery:	FID: 90.7% / PID: 94.9%	FID: 180% / PID: 130%	FID: 103% / PID: 103%	FID: 86.4% / PID: 87.3%	FID: 91.1% / PID: 90.1%
Instrument ID:	VAR-GC1	VAR-GC1	VAR-GC1	VAR-GC1	VAR-GC1

Analytes reported as ND were not detected or below the Practical Quantitation Limit
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor

APPROVED BY: _____
James C. Phillips / Laboratory Director or
Clari J. Cone / Laboratory Manager

CASTLE ANALYTICAL LABORATORY

Environmental Testing Services
Certificate # 2480
2333 Shuttle Drive, Atwater, CA 95301
Phone: (209) 384-2930
Fax: (209) 384-1507

HerSchy Environmental	Client Project ID: Alaska Gas - Oakland	Method: EPA 5030/8015M,8021B
P.O. Box 229	Reference Number: 10065	Instrument ID: Var-GC1
Bass Lake, CA 93604	Sample Description: Water	Extracted: 05-11-07
Attn: Red Ratilainen	Analyst: Jim Phillips	Analyzed: 05-11-07
		Reported: 05-22-07

QUALITY CONTROL DATA REPORT

ANALYTE	Gasoline	MTBE	Benzene	Toluene	Ethyl Benzene	Total Xylenes
Spike Concentration:	209	22.8	1.45	5.44	1.70	9.00
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
LCS Batch #:	VW-5117	VW-5117	VW-5117	VW-5117	VW-5117	VW-5117
LCS % Recovery:	79.5%	99.1%	134%	115%	110%	97.8%
Surrogate Recovery:	92.4%	88.1%	88.1%	88.1%	88.1%	88.1%
Control Limits:	70-130 %	70-130 %	70-130 %	70-130 %	70-130 %	70-130 %
MS/MSD Batch #:	VW-5117	VW-5117	VW-5117	VW-5117	VW-5117	VW-5117
Spike Concentration:	209	22.8	1.45	5.44	1.70	9.00
MS % Recovery:	90.0%	90.9%	126%	114%	106%	97.0%
Surrogate Recovery:	95.0%	91.4%	91.4%	91.4%	91.4%	91.4%
MSD % Recovery:	68.4%	93.0%	101%	76.1%	103%	80.7%
Surrogate Recovery:	96.6%	92.5%	92.5%	92.5%	92.5%	92.5%
Relative % Difference:	23.8%	2.07%	21.2%	39.0%	2.32%	18.1%
Method Blank :	ND	ND	ND	ND	ND	ND
Surrogate Recovery:	92.6%	93.2%	93.2%	93.2%	93.2%	93.2%

The LCS (Laboratory Check Sample) is a control sample of known, interferent free matrix that is fortified with representative analytes and analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery is used for validation of sample batch results. Due to matrix effects, the QC limits and recoveries for MS/MSD's are advisory only and are not used to accept or reject batch results.

APPROVED BY: _____

James C. Phillips / Laboratory Director or
Clari J. Cone / Laboratory Manager

CASTLE ANALYTICAL LABORATORY

Environmental Testing Services
Certificate No. 2480
2333 Shuttle Drive, Atwater, CA 95301
Phone: (209) 384-2930
Fax: (209) 384-1507

HerSchy Environmental	Client Project ID: Alaska Gas - Oakland	Sampled: 05-10-07
P.O. Box 229	Reference Number: 10065	Received: 05-10-07
Bass Lake, CA 93604	Sample Description: Water	Extracted: 05-11-07
Attn: Red Ratilainen	Sample Prep/Analysis Method: EPA 5030/8260	Analyzed: 05-11-07
	Lab Numbers: 10065-1W, 2W, 3W, 4W, 5W	Reported: 05-22-07

GASOLINE ADDITIVES AND SOLVENTS BY EPA METHOD 8260 GC/MS

ANALYTE	REPORTING LIMIT (µg/L)	SAMPLE ID MW-1R (µg/L)	SAMPLE ID MW-2 (µg/L)	SAMPLE ID MW-3 (µg/L)	SAMPLE ID MW-5 (µg/L)	SAMPLE ID MW-6 (µg/L)
FUEL OXYGENATES						
Methyl tert-Butyl Ether (MTBE)	0.50	5.9	200	180000	1.5	26
Di-isopropyl Ether (DIPE)	0.50	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (ETBE)	0.50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	0.50	ND	5.9	7100	ND	2.0
tert-Butanol (TBA)	20	ND	250	80000	ND	48
VOLATILE HALOCARBONS & AROMATICS						
1,2-Dichloroethane (1,2-DCA)	0.50	ND	ND	ND	ND	ND
Ethylene Dibromide (EDB)	0.50	ND	ND	ND	ND	ND
Report Limit Multiplication Factor:		1	10*	1000*	1	1
Report Limit Multiplication Factor for MTBE:				10000		

** Report limit raised due to matrix interference*

Surrogate Recoveries					
1,2-Dichloroethane-d4	96.4%	108%	87.2%	114%	96.8%
Toluene-d8	96.3%	78.3%	92.6%	85.7%	92.9%

Instrument ID: Varian 2100T & HP 5972 MS
Analytes reported as ND were not detected or below the Practical Quantitation Limit
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor
(µg/L) = micrograms per liter or parts per billion (ppb)

APPROVED BY: _____

James C. Phillips / Laboratory Director or
Clari J. Cone / Laboratory Manager

CASTLE ANALYTICAL LABORATORY

Environmental Testing Services
Certificate No. 2480
2333 Shuttle Drive, Atwater, CA 95301
Phone: (209) 384-2930
Fax: (209) 384-1507

HerSchy Environmental	Client Project ID: Alaska Gas - Oakland	Method: EPA 5030/8260
P.O. Box 229	Reference Number: 10065	Instrument ID: HP 5972 MS
Bass Lake, CA 93604	Matrix: Water	Prepared: 05-11-07
Attn: Red Ratilainen	Analyst: Scott Foster	Analyzed: 05-11-07
		Reported: 05-22-07

QUALITY CONTROL DATA REPORT

SPIKE ID: VWMS-5117V

	Reporting Limit µg/L	BLANK Result µg/L	Spiking Level µg/L	Control Spike %R	%R Limits
COMPOUNDS					
t-Butyl Alcohol (t-BA)	20	ND	75.0	113%	32.4 - 175.3
Methyl t-butyl ether (MTBE)	0.50	ND	2.50	113%	61.2 - 136.4
Diisopropyl ether (DIPE)	0.50	ND	2.50	90.0%	66.1 - 128.0
Ethyl t-Butyl ether (ETBE)	0.50	ND	2.50	102%	63.4 - 127.3
t-Amyl methyl ether (TAME)	0.50	ND	2.50	92.8%	53.4 - 133.9
1,2-Dichloroethane (1,2-DCA)	0.50	ND	2.50	94.4%	59.7 - 144.1
Ethylene dibromide (EDB)	0.50	ND	2.50	106%	56.7 - 144.1
Surrogates:					
1,2-Dichloroethane-d4	1.00	130%	10.0	74.5%	74.5 - 130.6
Toluene-d8	1.00	101%	10.0	84.8%	76.2 - 128.3

	Spiking Level µg/L	MATRIX SPIKE %R	MATRIX SPIKE DUP %R	%R Limits	%RPD
COMPOUNDS					
t-Butyl Alcohol (t-BA)	75.0	90.8%	112%	35.7 - 169.9	19.0%
Methyl t-butyl ether (MTBE)	2.50	115%	133%	46.6 - 144.2	14.5%
Diisopropyl ether (DIPE)	2.50	104%	114%	56.5 - 125.2	9.17%
Ethyl t-Butyl ether (ETBE)	2.50	110%	110%	57.1 - 127.9	0.00%
t-Amyl methyl ether (TAME)	2.50	106%	117%	54.9 - 117.2	10.0%
1,2-Dichloroethane (1,2-DCA)	2.50	74.8%	72.0%	48.1 - 144.3	3.81%
Ethylene dibromide (EDB)	2.50	101%	117%	53.3 - 132.8	15.0%
Surrogate:					
1,2-Dichloroethane-d4	10.0	108%	108%	55.7 - 147.1	0.278%
Toluene-d8	10.0	80.0%	86.6%	61.0 - 134.2	7.92%

The LCS (Laboratory Check Sample) is a control sample of known, interferent free matrix that is fortified with representative analytes and analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery is used for validation of sample batch results. Due to matrix effects, the QC limits and recoveries for MS/MSD's are advisory only and are not used to accept or reject batch results.

APPROVED BY: _____

James C. Phillips / Laboratory Director or
Clari J. Cone / Laboratory Manager

CASTLE ANALYTICAL LABORATORY

CHAIN OF CUSTODY

Location: 2333 Shuttle Drive, Bldg 908/909, Atwater, CA 95301
Mailing Address: 2333 Shuttle Drive, Atwater, CA 95301
Phone: (209) 384-2930 - Fax: (209) 384-1507

Certificate No. 2480

PAGE 1 OF 1

Customer: ALASKA GAS
Address:
City/State/ZIP: OAKLAND
Phone / FAX:
Proj # / P.O. #:
Report Attention: RICH Ratliff
Sampler Signature: John S. West
Printed: JOHN S. WEST

Lab ID#	SAMPLE ID	DATE	TIME	DESCRIPTION/LOCATION	SAMPLE TYPE (g) grab (c) composite (d) discrete	SAMPLE MATRIX (s) solid (l) liquid (o) other	BTEX/TPH-GAS	MTBE	TPH-DIESEL	TRPH 418.1M	Oxy's / EDB / DCA by 8260	8260				Electronic Deliverables (EDF)	NUMBER OF CONTAINERS	OBSERVATIONS/REMARKS
19065-1W	MW-1R	05-10	0713		G	L	X	X			X						3	
-2W	MW-2	"	0801		"	"	"	"			"						"	
-3W	MW-3	"	0648		"	"	"	"			"						"	
-4W	MW-5	"	0828		"	"	"	"			"						"	
-5W	MW-6	"	0735		"	"	"	"			"						"	

Method of Shipment:

Notes:

	Signature	Printed Name	Date	Time	Company Name
Relinquished by:	John S. West	JOHN S. WEST	05-10		HERSCHY ENV
Received by:					
Relinquished by:					
Received by:					
Relinquished by:					
Received by:	Linda Hamilton	Yinelia. Hampton	5/10/07	1200	Castle Analytical

15 Total number of containers submitted to the laboratory

Note: All special requests (e.g. quick turn times) must be cleared through authorized laboratory personnel .

RESULTS DUE : _____

☐ VERBAL ☐ WRITTEN

ATTACHMENT D

Historical Groundwater Data

Groundwater Analytical Results

Alaska Gasoline

6211 San Pablo Avenue
Oakland, California

	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	DIPE	ETBE	TAME
MW-1									
November 7, 1999	**5,700**	**170**	**59**	**22**	**85**	**20,000**	*NA*	*NA*	*NA*
March 8, 2001	**17,000**	**480**	**150**	**52**	**170**	**38,000**	*NA*	*NA*	*NA*
November 17, 2001	**10,000**	**230**	**210**	**60**	**250**	**22,000**	*NA*	*NA*	*NA*
March 31, 2002	**12,000**	**61**	ND	ND	**29**	**35,000**	*NA*	*NA*	*NA*
September 9, 2003	**19000**	ND	ND	ND	ND	50000	*NA*	*NA*	*NA*
December 9, 2003	**22000**	**150**	ND	ND	ND	66,000	*NA*	*NA*	*NA*
MW-1R									
November 17, 2001	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
March 31, 2002	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
September 9, 2003	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December 9, 2003	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February 19-20, 2004	**1,800**	**95**	**130**	**44**	**200**	**220**	*NA*	*NA*	*NA*
May 24-25, 2004	**210**	**12**	**10**	**5.4**	**23**	**79**	ND	ND	**2.1**
September 3, 2004	**300**	**1.5**	**7.1**	**9.4**	**42**	**81**	ND	ND	**1.6**
November 2, 2004	**290**	**14**	**30**	**9.5**	**45**	**45**	ND	ND	**1.1**
February 17, 2005	**530**	**3.4**	ND	ND	**2.6**	**1000**	ND	ND	**100**
May 24 & 26, 2005	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	ND	ND	**610**
August 15 & 17, 2005	**2,500**	**64**	**240**	**61**	**210**	**2,300**	ND	ND	**210**
November 17, 2005	**2,500**	**66**	**290**	**75**	**290**	**1,300**	ND	ND	**110**
February 8, 2006	**3,300**	**100**	**310**	**86**	**470**	**1,400**	ND	ND	**130**
May 5, 2006	**3,400**	**170**	**350**	**97**	**550**	**1,100**	ND	ND	**100**
August 18, 2006	**5,800**	**190**	**1,000**	**230**	**1,000**	**490**	ND	ND	**36**
December 1, 2006	**410**	**1.7**	**6.3**	**1.2**	**47**	**100**	ND	ND	**4.7**
February 23, 2007	ND	ND	**0.51**	ND	**1.4**	**2.6**	ND	ND	ND
May 10, 2007	ND	ND	ND	ND	**2.0**	**5.9**	ND	ND	ND
MW-2									
November 7, 1999	**6,000**	**1,300**	**92**	**50**	**400**	**6,800**	*NA*	*NA*	*NA*
March 8, 2001	**41,000**	**8,100**	**870**	**2,000**	**4,100**	**26,000**	*NA*	*NA*	*NA*
November 17, 2001	**18,000**	**3,700**	**180**	**610**	**640**	**16000**	*NA*	*NA*	*NA*
March 31, 2002	**32,000**	**6,500**	**270**	**1700**	**2700**	**19000**	*NA*	*NA*	*NA*
September 9, 2003	**24,000**	**4600**	ND	**1200**	**440**	**19000**	*NA*	*NA*	*NA*
December 9, 2003	**31000**	**6200**	**170**	**1600**	**2700**	**19000**	*NA*	*NA*	*NA*
February 19-20, 2004	**21,000**	**4,600**	**120**	**970**	**2,000**	**15,000**	*NA*	*NA*	*NA*
May 24-25, 2004	**1,200**	**120**	**3**	**63**	**67**	**1,900**	ND	ND	ND
September 3, 2004	**2,300**	**120**	ND	**51**	**70**	**1,700**	ND	ND	**26**
November 2, 2004	**530**	**35**	ND	**17**	**30**	**520**	ND	ND	**28**
February 17, 2005	**18,000**	**2,100**	**31**	**800**	**680**	**20,000**	ND	ND	**1,000**
May 24 & 26, 2005	**22,000**	**3,200**	**52**	**1,400**	**1,700**	**16,000**	ND	ND	NS
August 15 & 17, 2005	**2,000**	**66**	ND	**46**	**47**	**2,400**	ND	ND	**95**
November 17, 2005	**760**	**19**	**0.64**	**15**	**13**	**1000**	ND	ND	**26**
February 8, 2006	**10,000**	**1,500**	**8**	**660**	**380**	**4,300**	ND	ND	**120**
May 5, 2006	**15,000**	**1,800**	**ND**	**1,200**	**1,200**	**5,800**	ND	ND	**150**
August 18, 2006	**360**	**11**	**ND**	**13**	**9.7**	**160**	ND	ND	**4.6**
December 1, 2006	**11,000**	**1,000**	ND	**990**	**910**	**2,100**	ND	ND	**87**
February 23, 2007	**3,200**	**210**	ND	**270**	**85**	**900**	ND	ND	**33**
May 10, 2007	**590**	**31**	ND	**39**	**22**	**200**	ND	ND	5.9
MW-3									

November 7, 1999	**43,000**	**860**	**70**	ND	**65**	**120,000**	*NA*	*NA*	*NA*
March 8, 2001	**90,000**	**1800**	ND	ND	ND	**210,000**	*NA*	*NA*	*NA*
November 17, 2001	**110,000**	**1600**	ND	ND	ND	**300,000**	*NA*	*NA*	*NA*
March 31, 2002	**130,000**	**2400**	**670**	**300**	**390**	**300,000**	*NA*	*NA*	*NA*
September 9, 2003	**190000**	**1600**	ND	ND	ND	**420000**	*NA*	*NA*	*NA*
December 9, 2003	**170000**	**2000**	ND	ND	ND	**4,500,000**	*NA*	*NA*	*NA*
February 19-20, 2004	**86,000**	**1,800**	**630**	ND	ND	**160,000**	*NA*	*NA*	*NA*
May 24-25, 2004	**120,000**	**2,200**	ND	**180**	**220**	**400,000**	ND	ND	**15,000**
September 3, 2004	**180,000**	**2,000**	ND	ND	ND	**510,000**	ND	ND	**14,000**
November 2, 2004	**150,000**	**1,700**	ND	ND	ND	**350,000**	ND	ND	**31,000**
February 17, 2005	**130,000**	**2,100**	**420**	**210**	**730**	**290,000**	ND	ND	**11,000**
May 24 & 26, 2005	NS	NS	NS	NS	NS	NS	NS	NS	NS
August 15 & 17, 2005	**110,000**	**1,500**	ND	ND	ND	**260,000**	ND	ND	**21,000**
November 17, 2005	**200,000**	**2,400**	ND	ND	ND	**580,000**	ND	ND	**24,000**
February 8, 2006	**470,000**	**3,800**	**660**	ND	790	**490,000**	ND	ND	**26,000**
May 5, 2006	**400,000**	**3,300**	ND	ND	ND	**590,000**	ND	ND	**21,000**
August 18, 2006	**310,000**	**1,800**	ND	ND	ND	**440,000**	ND	ND	**23,000**
December 1, 2006	**270,000**	ND	ND	ND	ND	**290,000**	ND	ND	**11,000**
February 23, 2007	**220,000**	ND	ND	ND	ND	**260,000**	ND	ND	**15,000**
May 10, 2007	**140,000**	ND	ND	ND	ND	**180,000**	ND	ND	**7,100**
MW-4									
November 17, 2001	**64,000**	**960**	**1400**	**360**	**1600**	**140,000**	*NA*	*NA*	*NA*
March 31, 2002	**78000**	**4400**	**4700**	**690**	**2700**	**150,000**	*NA*	*NA*	*NA*
September 9, 2003	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December 9, 2003	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February 19-20, 2004	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
May 24-25, 2004	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
September 3, 2004	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*

November 2, 2004	NA	NA	NA	NA	NA	NA	NA	NA	NA
February 17, 2005	NA	NA	NA	NA	NA	NA	NA	NA	NA
May 24 & 26, 2005	NA	NA	NA	NA	NA	NA	NA	NA	NA
August 15 & 17, 2005	NA	NA	NA	NA	NA	NA	NA	NA	NA
November 17, 2005	NA	NA	NA	NA	NA	NA	NA	NA	NA
February 8, 2006	NA	NA	NA	NA	NA	NA	NA	NA	NA
May 5, 2006	NA	NA	NA	NA	NA	NA	NA	NA	NA
August 18, 2006	NA	NA	NA	NA	NA	NA	NA	NA	NA
December 1, 2006	NA	NA	NA	NA	NA	NA	NA	NA	NA
February 23, 2007	NA	NA	NA	NA	NA	NA	NA	NA	NA
May 10, 2007	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-5									
November 17, 2001	210	15	12	11	23	4.8	NA	NA	NA
March 31, 2002	120	11	7.4	6.1	16	4.2	NA	NA	NA
September 9, 2003	ND	1.5	ND	ND	ND	1.7	NA	NA	NA
December 9, 2003	130	32	ND	2.6	0.57	5	NA	NA	NA
February 19-20, 2004	ND	ND	ND	ND	ND	1.5	NA	NA	NA
May 24-25, 2004	ND	ND	ND	ND	ND	0.55	ND	ND	ND
September 3, 2004	100	6.4	ND	ND	0.79	4.2	ND	ND	ND
November 2, 2004	ND	2.6	ND	1.7	0.87	1	ND	ND	ND
February 17, 2005	51	0.74	ND	0.94	ND	1.5	ND	ND	ND
May 24 & 26, 2005	ND	ND	ND	ND	ND	1	ND	ND	NA
August 15 & 17, 2005	ND	ND	ND	ND	ND	0.88	ND	ND	ND
November 17, 2005	71	0.81	ND	1.1	ND	1.4	ND	ND	ND
February 8, 2006	50	ND	ND	ND	ND	1	ND	ND	ND
May 5, 2006	ND	ND	ND	ND	ND	0.93	ND	ND	ND
August 18, 2006	ND	ND	ND	ND	ND	1	ND	ND	ND
December 1, 2006	ND	0.69	ND	ND	0.52	0.97	ND	ND	ND
February 23, 2007	73	ND	ND	ND	ND	1.7	ND	ND	ND
May 10, 2007	ND	ND	ND	ND	ND	1.5	ND	ND	ND
MW-6									
November 17, 2001	3500	160	260	95	420	1500	NA	NA	NA
March 31, 2002	3200	410	170	82	280	3000	NA	NA	NA
September 9, 2003	800	49	ND	7.4	ND	1700	NA	NA	NA
December 9, 2003	970	150	9.9	31	83	1200	NA	NA	NA
February 19-20, 2004	1,900	280	58	17	160	2,700	NA	NA	NA
May 24-25, 2004	NA	NA	NA	NA	NA	NA	NA	NA	NA
September 3, 2004	1,100	27	ND	14	27	2,200	ND	ND	85
November 2, 2004	1,800	32	ND	5	11	4,100	ND	ND	170
February 17, 2005	5,600	190	34	41	110	10,000	ND	ND	780
May 24 & 26, 2005	NA	NA	NA	NA	NA	NA	NA	NA	NA
August 15 & 17, 2005	1,800	27	ND	6	23	3,800	ND	ND	300
November 17, 2005	1,100	30	ND	4	9	2,400	ND	ND	190
February 8, 2006	3,600	220	43	66	160	2,700	ND	ND	180
May 5, 2006	1,600	130	21	37	65	1,400	ND	ND	53
August 18, 2006	270	27	ND	3	4	240	ND	ND	11
December 1, 2006	1,700	ND	ND	ND	ND	1,700	ND	ND	92
February 23, 2007	0	ND	ND	ND	ND	15	ND	ND	ND
May 10, 2007	0	3.0	ND	ND	1.9	26	ND	ND	2
EX-1									
February 19-20, 2004	120,000	9,500	4,300	840	3,900	150,000	NA	NA	NA
May 24-25, 2004	NA	NA	NA	NA	NA	NA	NA	NA	NA
September 3, 2004	NA	NA	NA	NA	NA	NA	NA	NA	NA
November 2, 2004	NA	NA	NA	NA	NA	NA	NA	NA	NA

February 17, 2005	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
May 24 & 26, 2005	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	ND	ND	NS
August 15 & 17, 2005	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
November 17, 2005	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February 8, 2006	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
May 5, 2006	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
August 18, 2006	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
December 1, 2006	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
February 23, 2007	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
May 10, 2007	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*