CROWN
CHEVROLET • CADILLAC • ISUZU
7544 Dublin Blvd.
P.O. Box 2010
Dublin, California 94568
(925) 828-6500
www.crowndublin.com

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8:56 am, Jun 02, 2011
Alameda County
Environmental Health

May 26, 2011
Mr. Paresh Khatri
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94501-6577

Subject: **Revised Soil, Groundwater, and Soil Vapor Investigation Work Plan**
Crown Chevrolet Cadillac Isuzu
7544 Dublin Boulevard and 6707 Golden Gate Drive
Dublin, California
Fuel Leak Case No. RO0003014

Dear Mr. Khatri:

Enclosed please find the *Revised Soil, Groundwater, and Soil Vapor Investigation Work Plan* (work plan) for the Crown Chevrolet Cadillac Isuzu site at 7544 Dublin Boulevard and 6707 Golden Gate Drive, in Dublin, California (Fuel Leak Case No. RO0003014, GeoTracker Global ID T10000001616). This work plan was prepared by AMEC Geomatrix, Inc. (AMEC), on behalf of Crown Chevrolet Cadillac Isuzu.

I declare under penalty of perjury that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Please contact me at (925) 556-3201 or Avery Patton of AMEC at 510-663-4154 if you have any questions regarding this Work Plan.

Sincerely yours,

Patrick Costello
Owner
Crown Chevrolet Cadillac Isuzu

Attachment: Revised Soil, Groundwater, and Soil Vapor Investigation Work Plan

cc: Greggory Brandt, Wendel, Rosen, Black & Dean LLP
John Mullan, Zurich North American Insurance
Thomas L. Vormbrock, Rimkus Consulting Group, Inc.
Mark Cameron, Miller Starr Regalia
Ed Conti, AMEC Geomatrix, Inc.

"Where people make the difference."

May 26, 2011

Project OD10160070

Mr. Patrick Costello
Crown Chevrolet
P.O. Box 2010
Dublin, CA 94568

Subject: **Revised Soil, Groundwater, and Soil Vapor Investigation Work Plan**
Crown Chevrolet Cadillac Isuzu
7544 Dublin Boulevard and 6707 Golden Gate Drive
Dublin, California
Fuel Leak Case No. RO0003014

Dear Mr. Costello:

AMEC Geomatrix, Inc. (AMEC), has prepared this *Revised Soil, Groundwater, and Soil Vapor Investigation Work Plan* (work plan) on behalf of Crown Chevrolet for the property located at 7544 Dublin Boulevard and 6707 Golden Gate Drive in Dublin, California (the site; Figure 1). The original work plan, dated April 12, 2011, was prepared pursuant to a letter dated January 6, 2011, from the Alameda County Environmental Health Services Department (ACEH) to Terri Costello of the Betty K. Woolverton Trust and Patrick Costello of Crown Chevrolet,[1] requesting submission of a work plan for a subsurface investigation. This work plan has been revised to address comments provided by ACEH in an April 29, 2011, letter to Terri Costello of the Betty K. Woolverton Trust and Patrick Costello of Crown Chevrolet.[2]

BACKGROUND

The site is located on the relatively flat floor of a valley that extends to the north-northwest, toward San Ramon and Danville. The closest surface water body is a creek that flows through a culvert; the creek flows from a gully west of the site, enters a culvert north of the site, and then bends to the south, passing approximately 1,000 feet east of the site. Groundwater has been encountered in the vicinity of the site at depths of 11 to 16 feet below ground surface (bgs), and flows regionally to the east, based on data from groundwater monitoring at the Montgomery Ward property across Dublin Boulevard to the north of the site.[3] A recent investigation at Quest Laboratory, immediately south of the site, identified groundwater flow to the north, toward the site.[4] Later measurements indicated groundwater flow to the southeast.

In October 2008, Basics Environmental, Inc. (Basics), performed a Phase I environmental site assessment, which summarized the site's history and use.[5] A second Phase I environmental

[1] Alameda County Environmental Health, 2011, Site Investigation for Fuel Leak Case No. RO0003014 and GeoTracker Global ID T10000001616, Crown Chevrolet Cadillac Isuzu, 7544 Dublin Boulevard, Dublin, CA 94568, January 6.

[2] Alameda County Environmental Health, 2011, Site Investigation and Remedial Excavation for Fuel Leak Case No. RO0003014 and GeoTracker Global ID T10000001616, Crown Chevrolet Cadillac Isuzu, 7544 Dublin Boulevard, Dublin, CA 94568, April 29.

[3] Environmental Audit, Inc., 1996, Ground Water Monitoring Report, Fourth Quarter 1996, Montgomery Ward Auto Service Center, 7575 Dublin Boulevard, Dublin, California, December 12.

[4] Bureau Veritas, 2009, Additional Soil and Groundwater Investigation (Fuel Leak Case No. RO0002860), Former Quest Laboratory, 6511 Golden Gate Drive, Dublin, California, March 13.

[5] Basics Environmental, Inc., 2008, Phase I Environmental Site Assessment, 7544 Dublin Boulevard and 6707 Golden Gate Drive,

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site assessment was performed by AEI Consultants, and submitted in the same month.[6] Based on the potential sources of contamination identified in the Phase I assessments, which documented similar information, Basics performed a limited soil and groundwater investigation in February 2009, advancing 10 borings for the collection of soil and grab groundwater samples near potential sources of contamination. The results were documented in a report titled *Limited Phase II Environmental Sampling Report* (Phase II report).[7]

Based on the results of the Basics Phase II investigation, ACEH requested in a letter dated March 24, 2010, that additional investigation be performed to delineate the lateral and vertical extent of impacts to soil and groundwater.[8] AMEC submitted a work plan for soil and groundwater investigation to ACEH on June 15, 2010.[9] The work plan was approved in a letter from ACEH dated August 20, 2010.[10] In September 2010, AMEC performed an investigation on behalf of Crown to delineate the extent of certain constituents detected in soil and groundwater during the Basics Investigation. The results are summarized in the April 4, 2011, *Revised Soil and Groundwater Investigation Report*.[11] Following the AMEC investigation, Ninyo & Moore performed an additional Phase II investigation on behalf of the Chabot–Las Positas Community College District in December 2010. The results were reported in the *Limited Phase II Environmental Site Assessment*, dated January 7, 2011.[12] The sample locations from the Basics, AMEC, and Ninyo & Moore investigations are shown on Figure 2.

On January 6, 2011, ACEH issued a letter to to Terri Costello of the Betty K. Woolverton Trust and Patrick Costello of Crown Chevrolet, requesting corrections and clarifications to the original report documenting AMEC's September 2010 investigation, and requesting a work plan for additional soil and groundwater investigation. The corrections and clarifications are included in the April 4, 2011, *Revised Soil and Groundwater Investigation Report*. The scope of work included in the following sections addresses the request for additional investigation.

FIELD INVESTIGATION

Twenty-two soil borings will be advanced at the proposed boring locations shown on Figure 3, as follows:

- Two soil borings (borings A and B) and one soil/grab groundwater boring (boring C) will be advanced in the vicinity of the sump in Service Area 2 to delineate the extent of volatile organic compounds (VOCs) and total petroleum hydrocarbons quantified as gasoline (TPHg) in soil. Boring C will also be used to further delineate VOCs and TPHg in groundwater east of the sump.

Dublin, California, October 14.

6 AEI Consultants, 2008, Phase I Environmental Site Assessment, 7544 Dublin Boulevard & 6707 Golden Gate Drive, Dublin, California, October 29.

7 Basics Environmental, Inc., 2009, Limited Phase II Environmental Site Sampling Report, 7544 Dublin Boulevard & 6707 Golden Gate Drive, Dublin, California, March 16.

8 Alameda County Environmental Health, 2010, Site Investigation for Fuel Leak Case No. RO0003014 and GeoTracker Global ID T10000001616, Crown Chevrolet Cadillac Isuzu, 7544 Dublin Boulevard, Dublin, CA 94568, March 24.

9 AMEC, 2010, Soil and Groundwater Investigation Work Plan, Crown Chevrolet Cadillac Isuzu, 7544 Dublin Boulevard and 6707 Golden Gate Drive, Dublin, California, June 15.

10 Alameda County Environmental Health, 2010, Site Investigation for Fuel Leak Case No. RO0003014 and GeoTracker Global ID T10000001616, Crown Chevrolet Cadillac Isuzu, 7544 Dublin Boulevard, Dublin, CA 94568, August 20.

11 AMEC, 2011, Revised Soil and Groundwater Investigation Report, Crown Chevrolet Cadillac Isuzu, 7544 Dublin Boulevard and 6707 Golden Gate Drive, Dublin, California, April 4.

12 Ninyo & Moore, 2011, Limited Phase II Environmental Site Assessment, Crown Chevrolet, 7544 Dublin Boulevard, Dublin, California, January 7.

- One soil/grab groundwater boring (boring D) will be advanced in the vicinity of the 90-degree bend in the drain line from the sump in Service Area 2 to the sanitary sewer, approximately 20 feet south of the sump, to evaluate the potential for leaks from the drain line. This boring will also be used to further delineate VOCs and TPHg in groundwater south of the sump.
- Four soil/grab groundwater borings (borings E, F, G, and H) will be advanced to delineate the extent of VOCs and TPHg in groundwater related to suspected impacts from the sump.
- Five soil/grab groundwater borings (borings I, J, K, L, and M) will be advanced near some of the current and historical hydraulic lifts to evaluate the potential presence of total petroleum hydrocarbons and/or polychlorinated biphenyls (PCBs), based on the detection of PCBs in a soil sample collected by Ninyo & Moore.
- One soil/grab groundwater boring (boring N) will be advanced in the vicinity of the former hazardous materials storage area to evaluate the potential for VOCs in soil, based on a detection of VOCs in a soil vapor sample collected by Ninyo & Moore.
- Eight soil/soil vapor borings (borings O, P, Q, R, S, T, U, and V) will be advanced adjacent to the drain line from the sump in Service Area 2 to the sanitary sewer line, and along the sanitary sewer line within the site boundary, to evaluate the potential for leaks from the drain line and sanitary sewer line, based on the detections of VOCs in a soil vapor sample collected by Ninyo & Moore.
- One cone penetrometer technology (CPT) boring (boring W) will be advanced approximately 30 feet from the sump in Service Area 2, and two companion borings will be advanced nearby for grab groundwater sample collection from the second and third water-bearing zones, if possible, to evaluate potential impacts to deeper groundwater at the site.
- One soil/grab groundwater boring (boring X) will be advanced in the vicinity of a former sump identified on recently obtained building plans (located at the southeast corner of Auto Body Shop 1), to evaluate potential impacts from VOCs and TPH related to historical sump use.

The anticipated soil sampling depths and target analytes for each sample location are presented in Table 1. The approximate planned sample locations are shown on Figure 3.

Field Methods

Prior to conducting the field work, AMEC will obtain a soil boring permit from Zone 7 Water Agency. Additionally, AMEC will mark the proposed boring locations with white paint, contact Underground Service Alert, and contract with a private utility locator to clear boring locations for underground utilities.

Soil Borings

Borings for soil and grab groundwater sampling (with the exception of the groundwater samples to be collected from the deeper water-bearing zones) will be advanced using dual-tube direct-push technology by a licensed drilling contractor under the supervision of AMEC field personnel. A decontaminated hand auger may be used to advance the first 5 feet of each boring. Borings for soil vapor may be advanced using dual-tube direct-push technology or a hand auger.

Soil borings for soil and grab groundwater sample collection will be advanced to approximately 2 feet below first encountered groundwater, which is assumed to occur at approximately 11 to 16 feet bgs. Soil borings for soil and soil vapor sample collection will be advanced to approximately 1.5 feet below the bottom depth of the adjacent sewer line or drain to the sewer line. The depth of the drain and sewer line will be estimated by looking with a flashlight, performing measurements in cleanouts and manholes, if accessible, and by the utility locator prior to the field investigation.

A continuous core of soil will be collected into a butyrate liner at each soil boring location for lithologic logging and collection of soil samples. Lithology will be described by an AMEC field geologist, under the supervision of an AMEC California Professional Geologist, using the visual-manual procedures of the ASTM International Standard D 2488 for guidance, which is based on the Unified Soil Classification System (USCS). Recovered soil will be screened for the presence of volatile organic compounds using a photoionization detector (PID). The PID readings will be recorded on the lithologic logs prepared for each boring. Field observations of the presence of any staining or odor will also be recorded.

Soil Sampling

The soil sample depths will be based on field observations, including staining, odor, or elevated PID readings. If there is field evidence of contamination, a soil sample will also be collected from a depth interval below the apparently impacted soil to evaluate the vertical extent of the contamination. In the absence of field evidence of contamination, soil samples will be collected from the approximate depths shown on Table 1.

Soil samples for TPHg and/or VOCs analyses will be collected using a field preservation method in accordance with U.S. Environmental Protection Agency (U.S. EPA) Method 5035. Soil samples for non-volatile or semi-volatile analyses will be collected into laboratory-supplied glass jars, or the butyrate sample liner will be cut, capped with Teflon® sheets and plastic end caps, and sealed with silicone tape. Samples will be immediately labeled with unique identifiers and the sample collection time, and then stored in an ice-chilled cooler pending transport to a California Department of Public Health−certified analytical laboratory under AMEC chain-of-custody procedures.

Cone Penetrometer Technology and Grab Groundwater Sampling

The April 29, 2011, letter from ACEH to the Betty K Woolverton Trust and Crown Chevrolet requested that the vertical extent of VOC contamination in groundwater be assessed near the sump. Based on the regional topography in the vicinity of the site, groundwater flow is expected to be toward the east to southeast. A state-licensed drilling company will be contracted to advance one cone penetrometer technology (CPT) boring. Grab groundwater samples will then be collected from two companion borings approximately 5 to 10 feet away from the CPT boring. The grab groundwater samples will be collected from the second and third relatively coarse-grained units identified in the CPT boring, if encountered above 75 feet bgs.

The first 5 feet of each boring may be advanced using a hand auger as a precautionary measure to avoid unknown underground utility lines. The hand auger will be cleaned by washing with Alconox detergent and rinsing with tap water between each boring location. A CPT direct push rig will then be used to advance the CPT tool to a maximum total depth of 75 feet bgs to obtain data on lithology and soil saturation. The CPT rig hydraulically pushes an instrumented cone into the ground, which continuously records the soils responses of tip resistance, friction sleeve resistance, and pore water pressure. Tip resistance and friction sleeve resistance

depend primarily on soil grain size. Soil pore water pressure depends on soil saturation, hydraulic conductivity, and compressibility. The CPT data are recorded with depth, providing direct information on subsurface conditions. The CPT equipment will be operated in general accordance with the American Society of Testing and Materials (ASTM) Standard D3441.[13] Established correlations between the CPT data and soil behavior type published by Robertson and Campanella will be used to interpret the stratigraphy at each boring.[14] Robertson and Campanella classify nine different soil behavior types based on the CPT data. Each soil behavior type has a resulting hydraulic conductivity value based on empirical data. A combination of high tip resistance and friction ratios of two percent or less are generally indicative of coarse-grained sediments.

Grab groundwater samples will then be collected from the second and third coarse-grained zones identified in the CPT boring by advancing companion boreholes approximately 5 to 10 feet away from the CPT boring. Approximately 1.75-inch-diameter hollow push rods will be used to advance a probe consisting of a temporary well screen fitted with an O-ring-sealed disposable tip. The temporary well screen will be advanced in a closed position to the bottom of the targeted coarse grained unit. The push rods will then be retracted approximately five feet to expose a 0.010-inch slotted polyvinyl chloride (PVC) well screen. A grab groundwater sample will be collected using the methodology described in the Grab Groundwater Sampling section, below.

Soil Vapor Sampling

Soil vapor borings will be advanced to a total depth of approximately 1.5 feet below the bottom depth of the sewer or drain line, using the methodology described above. Temporary soil vapor probes will be installed, sampled, and abandoned, as described in the following sections.

Probe Installation

Once the total desired depth has been reached, new, disposable, small-diameter (i.e., 1/8-inch or 1/4-inch outside diameter) Teflon® tubing, fitted with a filter at the bottom to prevent particulate infiltration, will be placed in the boring at approximately 0.5 feet above the bottom of the boring. Approximately 12 inches of filter pack sand will be placed in the bottom of the boring, with the bottom of the Teflon® tubing placed midway through the filter pack sand. For boring locations where the drain line or sewer is relatively shallow, the interval of dry, granular bentonite may be reduced in order to allow a deeper seal of hydrated bentonite.

Following installation of the sand pack, approximately 1 foot of dry granular bentonite will be emplaced above the sand pack. The borehole will then be grouted to the surface with bentonite granules or chips that are hydrated in maximum 6-inch lifts. A valve will be fitted to the aboveground end of the tubing and will remain closed prior to purging and sampling.

Equilibration

For borings advanced using a hand auger, the soil vapor probe will be allowed to equilibrate for a minimum of 48 hours prior to purging and sampling. During that time it will be protected by a zip-closure plastic bag and traffic cones. For borings advanced using direct-push technology,

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[13] American Society of Testing and Materials (ASTM) Standard D3441, 2000.

[14] Robertson, P.K., Campanella, R.G., Gillespie, D. & Grieg, J. (1986), "Use of piezometer cone data," Use of In-Situ Tests in Geotechnical Engineering (GSP6), ASCE, Reston, VA, 1263-1280.

the soil vapor probe will be allowed to equilibrate for at least 30 minutes prior to purging and sampling.

Purging and Sampling

Following equilibration, AMEC will assemble a soil vapor sampling manifold that will allow each soil gas sample to be collected into a 1-liter Summa™ canister. The manifold will include a Summa™ canister, flow controller, and three-way valve so that the purge port is not in line with the Summa™ canister. Canisters and flow controllers will be provided by a California Department of Public Health−accredited laboratory.

Immediately prior to sampling, the tubing and manifold will be purged to clear the tubing and sample train of stagnant or ambient air. Because samples will be collected into Summa™ canisters for analysis at a fixed laboratory and analytical results will not immediately be available, a purge volume test will not be possible and the default of three purge volumes will be removed before sampling at each location. One purge volume will be calculated in the field based on the volume of the void space in the tubing (including the manifold) plus an estimate of the void space in the sand pack. The estimated purge volume calculation is presented below.

> Estimated purge volume: one purge volume ≈ (internal volume of tubing, including manifold) + (annular pore space around probe tip)

The vapor flow rate during purging will be limited to less than 200 milliliters per minute (mL/min) using a universal pump calibrated with a volumetric air flow meter.

Immediately following purging at each location, a soil gas sample will be collected into a 1-liter Summa™ canister, which will be equipped with a flow controller that limits the flow rate into the canister to less than 200 mL/min. The Summa™ canister will be allowed to fill almost completely. Following sampling, the Summa™ canister will be capped with a fitting to prevent ambient air intrusion during shipping, labeled, and stored in a cardboard box prior to being shipped to an appropriately qualified analytical laboratory under AMEC chain-of-custody procedures.

Quality Control

Leak testing will be conducted prior to sampling using a shut-in test, as well as during sampling using tracer compounds. During the shut-in test, a vacuum will be created in the sample train, extending to the valve closest to the ground surface, and the vacuum will be monitored over a period of several minutes to confirm that it remains stable. During the tracer compound leak test, which will be conducted during sampling, AMEC will fill a shroud over the boring (i.e., where the probe tubing enters the subsurface) with an appropriate tracer compound and each sample will also be analyzed for the tracer compound.

One ambient air sample will be collected per day of soil vapor sampling, and will be analyzed for the same suite of constituents as the primary samples. Ambient air samples will be collected into 6-liter Summa™ canisters equipped with flow controllers that will allow the canisters to fill over the course of the field work each day (e.g., 6-hour or 8-hour flow controllers). The canister will be placed in an approximately upwind direction of the sampling area each day.

Probe Destruction

Following completion of sampling activities, the temporary vapor probes will be abandoned by pulling the probe tubing from the ground. The ground surface will be repaired to match surrounding conditions.

Grab Groundwater Sampling

Once each soil boring has been advanced to total depth at locations where a grab groundwater sample will be collected from the first water-bearing zone, temporary polyvinyl chloride (PVC) casing with 5 feet of 0.01-inch slotted screen will be installed in the boring, and the outer drill casing will be retracted to expose the PVC screen to the water-bearing unit.

Prior to collection all groundwater samples, if feasible, the casing will be purged using a peristaltic pump, inertial lift pump, or new, disposable, polyethylene or stainless steel bailer to decrease turbidity in the sample. Following purging, a grab groundwater sample will be collected from each boring using a peristaltic pump, inertial lift pump, or bailer.

The groundwater samples will be placed into laboratory-provided containers equipped with preservatives appropriate for the desired analyses. Samples will be immediately labeled with unique identifiers and the sample collection time, and then stored in an ice-chilled cooler pending transport to a California Department of Public Health−certified analytical laboratory under AMEC chain-of-custody procedures.

Following completion of sampling, the borings will be backfilled using a tremie hose or pipe from total depth to ground surface with neat cement grout.

Investigation-Derived Waste

Investigation-derived waste, including drill cuttings, purge water, and equipment wash water, will be stored at the site in 55-gallon drums pending disposal by Crown Chevrolet.

Laboratory Analytical Methods

The soil and grab groundwater samples will be analyzed for one or more of the following:

- VOCs using U.S. EPA Method 8260B;
- TPHg using U.S. EPA Method 8260B;
- TPH as diesel (TPHd), TPH as motor oil (TPHmo), and/or TPHho using U.S. EPA Method 8015, following a silica gel preparation procedure in accordance with U.S. EPA Method 3630B. In addition, from each boring where a groundwater sample is collected, a duplicate grab groundwater sample will be filtered by the laboratory using a 0.7-micron glass-fiber filter prior to analysis, in order to provide an analysis that limits representation of TPH in the extractible range that may be adsorbed onto sediment present in the grab groundwater samples;[15]
- Polynuclear aromatic hydrocarbons (PAHs) or naphthalene only using U.S. EPA Method 8270C, with selective ion monitoring; and
- PCBs using U.S. EPA Method 8082.

[15] Copies of the laboratory analytical reports included in Basics' Phase II report indicated that each groundwater sampled contained at least 1% sediment. It is possible that the results of the Phase II may overestimate the concentrations of TPH in groundwater due to analysis of TPH that may be adsorbed onto sediment in the samples.

The soil vapor samples will be analyzed for VOCs and naphthalene using U.S. EPA Method TO-15.

A duplicate grab groundwater sample will be collected from one boring and analyzed for the same suite of constituents as the primary sample.

Additionally, to assist with waste disposal profiling, one composite sample of soil cuttings generated during the investigation will be analyzed for Title 22 metals, using U.S. EPA Method 6020, with the exception of mercury, which will be analyzed using U.S. EPA Method 7471A.

REPORTING

AMEC will prepare a report that documents the results of this investigation for submittal to ACEH. The report will include copies of the analytical laboratory reports and sample chain of custody records. The report will also include tables and figures, as needed, for clarity of presentation.

ANTICIPATED SCHEDULE

We anticipate that field work will commence within four weeks of approval of this work plan by ACEH, pending subcontractor availability, with the exception of the CPT portion of the investigation, which has already been performed. The CPT work was approved by ACEH in an email from Paresh Khatri of ACEH to Avery Patton of AMEC on May 12, 2011.

We anticipate the field investigation can be performed in six days. The April 29, 2011, letter from ACEH to the Betty K Woolverton Trust and Crown Chevrolet requests submission of a report documenting the results to ACEH on July 27, 2011.

Please contact either of the undersigned if you have any questions or require additional information regarding this work plan.

Sincerely yours,
AMEC Geomatrix, Inc.

Avery Patton, P.G.
Project Geologist

Edward P. Conti, C.E.G., C.HG
Principal Geologist

PROFESSIONAL GEOLOGIST
EDWARD P. CONTI
No. 214
CERTIFIED HYDRO GEOLOGIST
STATE OF CALIFORNIA

AP/EPC/jd
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Attachments: Table 1 – Sampling and Analysis Plan
Figure 1 – Site Location Map
Figure 2 – Site Plan and Historical Sample Locations
Figure 3 – Proposed Sample Locations

cc: Greggory Brandt, Wendel, Rosen, Black & Dean LLP
John Mullan, Zurich North American Insurance
Thomas L. Vormbrock, Rimkus Consulting Group, Inc.
Mark Cameron, Miller Starr Regalia

TABLE 1

SAMPLING AND ANALYSIS PLAN
Crown Chevrolet Cadillac Isuzu
7544 Dublin Boulevard and 6707 Golden Gate Drive
Dublin, California

Location	Anticipated Total Boring Depth (feet bgs)	Anticipated Sample Depth (feet bgs) [1]	Media	VOCs [2]	TPHg [3]	TPHd/mo [4]	TPHho [4]	Naphthalene [5]	PCBs [6]
A	12.0	4.0	Soil	X	X	--	--	X [7]	--
		8.0	Soil	X	X	--	--		--
		12.0	Soil	X	X	--	--		--
B	12.0	4.0	Soil	X	X	--	--	X [7]	--
		8.0	Soil	X	X	--	--		--
		12.0	Soil	X	X	--	--		--
C	15 - 20	4.0	Soil	X	X	--	--	X [7]	--
		8.0	Soil	X	X	--	--		--
		12.0	Soil	X	X	--	--		--
		1st Groundwater	Groundwater	X	--	--	--	X	--
D	15 - 20	4.0	Soil	X	X	--	--	X [7]	--
		8.0	Soil	X	X	--	--		--
		12.0	Soil	X	X	--	--		--
		1st Groundwater	Groundwater	X	--	--	--	X	--
E	15 - 20	Field Evidence [8]	Soil	Poss.	--	--	--	Poss.	--
		1st Groundwater	Groundwater	X	--	--	--	X	--
F	15 - 20	Field Evidence [8]	Soil	Poss.	--	--	--	Poss.	--
		1st Groundwater	Groundwater	X	--	--	--	--	--
G	15 - 20	Field Evidence [8]	Soil	Poss.	--	--	--	Poss.	--
		1st Groundwater	Groundwater	X	--	--	--	--	--
H	15 - 20	Field Evidence [8]	Soil	Poss.	--	--	--	Poss.	--
		1st Groundwater	Groundwater	X	--	--	--	--	--
I	15 - 20	6.0	Soil	--	--	--	X	X [7]	X
		12.0	Soil	--	--	--	X		X
		1st Groundwater	Groundwater	X	--	--	X	--	--
J	15 - 20	6.0	Soil	--	--	--	X	X [7]	X
		12.0	Soil	--	--	--	X		X
		1st Groundwater	Groundwater	X	--	--	X	X	--
K	15 - 20	6.0	Soil	--	--	--	X	X [7]	X
		12.0	Soil	--	--	--	X		X
		1st Groundwater	Groundwater	X	--	--	X	X	--
L	15 - 20	6.0	Soil	--	--	--	X	X [7]	X
		12.0	Soil	--	--	--	X		X
		1st Groundwater	Groundwater	X	--	--	X	--	--
M	15 - 20	6.0	Soil	--	--	--	X	X [7]	X
		12.0	Soil	--	--	--	X		X
		1st Groundwater	Groundwater	X	--	--	X	--	--
N	15 - 20	4.0	Soil	X	--	--	X	X [7]	X
		8.0	Soil	X	--	--	X		X
		12.0	Soil	X	--	--	X		X
		1st Groundwater	Groundwater	X	--	--	X	X	--
O	4.5 [9]	Field Evidence [8]	Soil	Poss.	--	--	--	Poss.	--
		4.0	Soil Vapor	X	--	--	--	X	--
P	4.5 [9]	Field Evidence [8]	Soil	Poss.	--	--	--	Poss.	--
		4.0	Soil Vapor	X	--	--	--	X	--
Q	4.5 [9]	Field Evidence [8]	Soil	Poss.	--	--	--	Poss.	--
		4.0	Soil Vapor	X	--	--	--	X	--
R	4.5 [9]	Field Evidence [8]	Soil	Poss.	--	--	--	Poss.	--
		4.0	Soil Vapor	X	--	--	--	X	--
S	5.5 [9]	Field Evidence [8]	Soil	Poss.	--	--	--	Poss.	--
		5.0	Soil Vapor	X	--	--	--	X	--

TABLE 1

SAMPLING AND ANALYSIS PLAN

Crown Chevrolet Cadillac Isuzu
7544 Dublin Boulevard and 6707 Golden Gate Drive
Dublin, California

Location	Anticipated Total Boring Depth (feet bgs)	Anticipated Sample Depth (feet bgs) [1]	Media	VOCs [2]	TPHg [3]	TPHd/mo [4]	TPHho [4]	Naphthalene [5]	PCBs [6]
T	5.5 [9]	Field Evidence [8]	Soil	Poss.	--	--	--	Poss.	--
		5.0	Soil Vapor	X	--	--	--	X	--
U	5.5 [9]	Field Evidence [8]	Soil	Poss.	--	--	--	Poss.	--
		5.0	Soil Vapor	X	--	--	--	X	--
V	5.5 [9]	Field Evidence [8]	Soil	Poss.	--	--	--	Poss.	--
		5.0	Soil Vapor	X	--	--	--	X	--
W	75	2nd Groundwater	Groundwater	X	X	X	--	X	--
		3rd Groundwater	Groundwater	X	X	X	--	X	--
X	15 - 20	6.0	Soil	X	X	X	--	X [10]	--
		12.0	Soil	X	X	X	--	X [10]	--
		1st Groundwater	Groundwater	X	X	X	--	X [10]	--

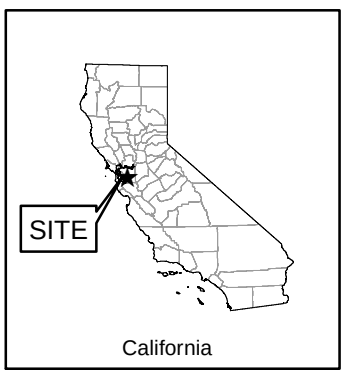
Notes

1. The soil sample depths will be based on field observations, including staining, odor, or elevated PID readings. If there is field evidence of contamination, a soil sample will also be collected from a depth interval below the apparently impacted soil to evaluate the vertical extent of the contamination. In the absence of field evidence of contamination, soil samples will be collected from the approximate depths shown. In addition, the deepest soil sample depth may be adjusted based on the occurrence of groundwater.
2. Soil and grab groundwater samples will be analyzed for VOCs using U.S. EPA Method 8260B. Soil vapor samples will be analyzed for VOCs using U.S. EPA Method TO-15.
3. Samples will be analyzed for TPHg using U.S. EPA Method 8260B.
4. Samples will be analyzed for TPHd/mo, and TPHho using U.S. EPA Method 8015B, following a silica gel preparation in accordance with U.S. EPA Method 3630C. In addition, from each boring where a groundwater sample is collected, a duplicate grab groundwater sample will be filtered by the laboratory using a 0.7-micron glass-fiber filter prior to analysis, in order to provide an analysis that limits representation of TPH in the extractible range that may be adsorbed onto sediment present in the grab groundwater samples.
5. Soil and grab groundwater samples will be analyzed for naphthalene using U.S. EPA Method 8270C, with selective ion monitoring. Soil vapor samples will be analyzed for naphthalene using U.S. EPA Method TO-15.
6. Samples will be analyzed for PCBs using U.S. EPA Method 8082.
7. The soil sample depths will be based on field observations, including staining, odor, or elevated PID readings. If there is field evidence of contamination, a soil sample will also be collected from a depth interval below the apparently impacted soil to evaluate the vertical extent of the contamination. In the absence of field evidence of contamination, one soil sample will be collected from the boring; the sample depth will be determined in the field.
8. A soil sample will be collected if there is field evidence of potential impacts, including staining, odor, or elevated PID readings.
9. The depth of the soil vapor borings will be approximately 1.5 feet below the depth of the drain line or sanitary sewer line. The depth of the drain and sewer line will be estimated by looking with flashlights, performing measurements in cleanouts and manholes, if accessible, and by the utility locator prior to the field investigation.
10. The sample will be analyzed for all PAHs, including naphthalene.

Abbreviations

-- = analysis not performed
bgs = below ground surface
NA = not applicable
PAHs = polynuclear aromatic hydrocarbons
PCBs = polychlorinated biphenyls
PID = photoionization detector
Poss. = possible (sample may be collected)
TPHd/mo = total petroleum hydrocarbons quantified as diesel and motor oil
TPHg = total petroleum hydrocarbons quantified as gasoline
TPHho = total petroleum hydrocarbons quantified as hydraulic oil
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds
X = analysis to be performed

FIGURES



0 1,500 3,000 Feet

N

SITE LOCATION MAP
Crown Chevrolet Cadillac Isuzu
7544 Dublin Boulevard and 6707 Golden Gate Drive
Dublin, California

By: AWP	Date: 04/11/2011	Project No. OD1016007
AMEC Geomatrix	Figure 1	

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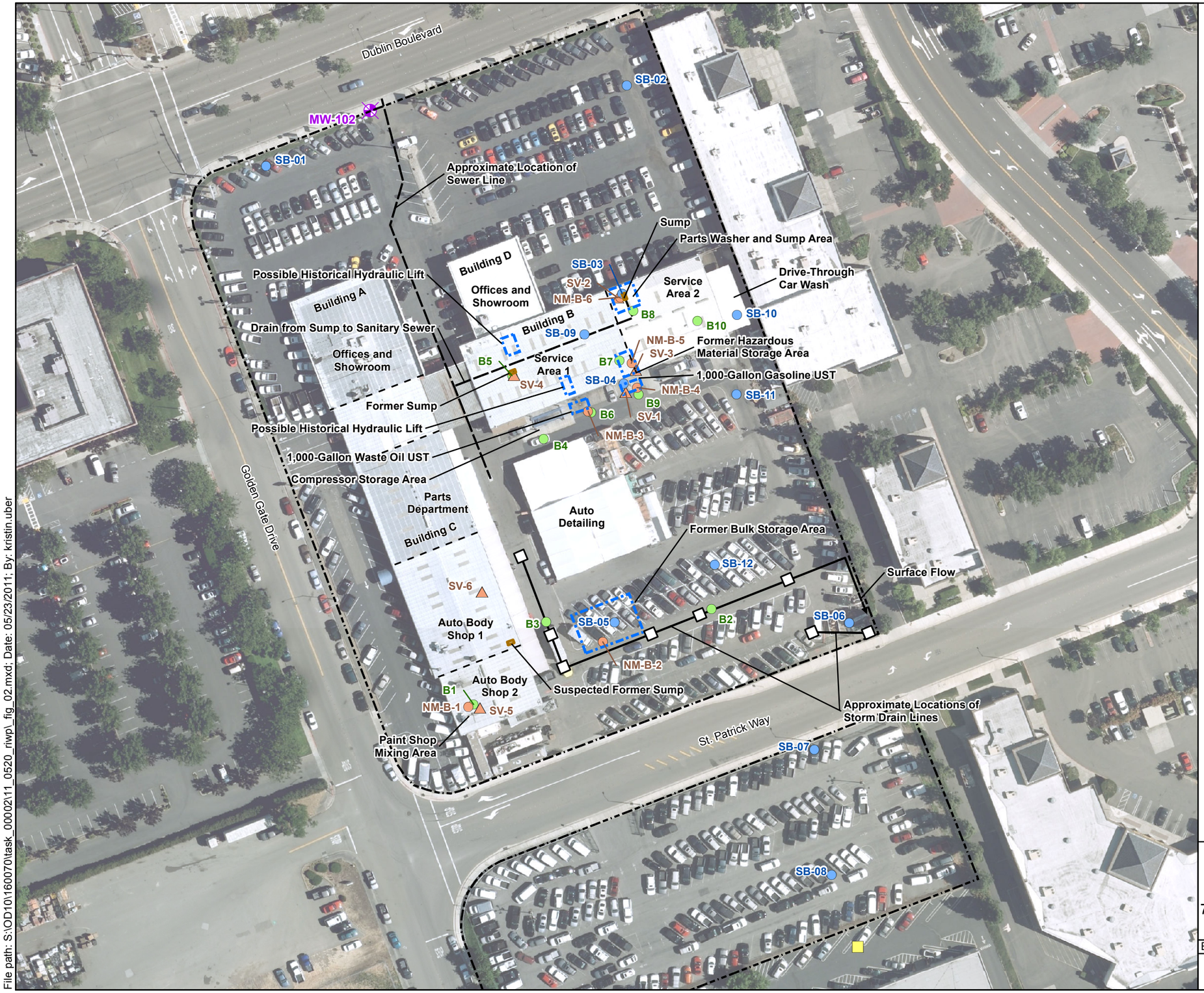

Explanation

- AMEC soil and/or grab groundwater sample location (September 27 through 29, 2010)
- Ninyo & Moore soil and/or grab groundwater sample location (December 16, 2010)
- Ninyo & Moore soil vapor sample location (December 15-16, 2010)
- Basics Environmental soil and/or grab groundwater sample location (February 24-25, 2009)
- Approximate location of historical Montgomery Ward monitoring well MW-102
- Approximate location of historcal Quest Laboratory underground storage tank
- Storm drain inlet
- Approximate property boundary
- Approximate outline of feature
- Internal building wall
- Approximate sump location

SITE PLAN AND
HISTORICAL SAMPLE LOCATIONS
Crown Chevrolet Cadillac Isuzu
7544 Dublin Boulevard and 6707 Golden Gate Drive
Dublin, California

By: GFS	Date: 05/23/2011	Project No. OD10160070
AMEC Geomatrix	Figure 2	

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File path: S:\OD10\160070\task_00002\11_0520_riwp_fig_03.mxd; Date: 05/23/2011; By: kristin.uber

Explanation

- Proposed soil sample location
- Proposed soil and grab groundwater sample location
- Proposed soil/soil vapor sample location
- Proposed location of CPT boring to 75 feet bgs, Hydropunch-type boring to approximately 40 feet bgs, and Hydropunch-type boring to approximately 70 feet bgs
- AMEC soil and/or grab groundwater sample location (September 27 through 29, 2010)
- Ninyo & Moore soil and/or grab groundwater sample location (December 16, 2010)
- Ninyo & Moore soil vapor sample location (December 15-16, 2010)
- Basics Environmental soil and/or grab groundwater sample location (February 24-25, 2009)
- Approximate location of historical Montgomery Ward monitoring well MW-102
- Approximate location of current or historical hydraulic lift
- Approximate property boundary
- Approximate outline of feature
- Internal building wall
- Approximate sump location

0 40 80 Feet

Notes:

bgs = below ground surface
CPT = cone penetrometer technology

PROPOSED SAMPLE LOCATIONS
Crown Chevrolet Cadillac Isuzu
7544 Dublin Boulevard and 6707 Golden Gate Drive
Dublin, California

By: AWP	Date: 05/23/2011	Project No.OD10160070
AMEC Geomatrix	Figure 3	