ENVIRONMENTAL
INVESTIGATION & ACTION, INC.

FAX COVER SHEET

DATE: 10/19/94

ATTN: Juliet Shin

COMPANY: Alameda County Environmental Health

FAX #: (510) 337-9335

RE: 508 E. Lewelling Blvd.

DOCUMENTS: Revised work plan

PAGES:

COMMENTS: Juliet, I contacted Trace Labs and they told me they had no scale to the drawing of this site. Please give me a call as to what you want to do. I might be able to visit site or get plot plan from owner if you really need it.

FROM: Kurt Soto-Gombiner

Environmental Investigation and Action, Inc.
22390 Thunderbird Place
Hayward, CA 94545
(510) 264-9081
(510) 264-9083 fax

WORKPLAN
SUPPLEMENTAL SURFACE INVESTIGATION
Engine Research Company
508 East Lewelling Blvd.
San Lorenzo, CA 94580

At the request of Engine Research Company (ERC), Environmental Investigation and Action, Inc. (EIA) has prepared this workplan for a supplement subsurface investigation at the above-referenced site. Based on a review of previous work conducted at the site, EIA concluded that additional site investigation is needed in the vicinity of soil sample E3 (see Figure C1), and in the vicinity of three former tanks and soil sampled areas, adjacent to the garage building . The purpose of the proposed investigation is to evaluate the extent of hydrocarbon-impacted soil at the site, if any, as well as, to evaluate groundwater conditions beneath the site, and to respond to a Alameda County Environmental Health Hazardous Material (ACEHD) letter dated May 19, 1994. (see Attachment 1).

PROPOSED SCOPE OF WORK

The proposed work will be conducted in accordance with the Alameda County Environmental Health Hazardous Material (ACEHD) Guidelines for Report Submittals, dated May 19, 1994. The proposed work will not begin until this workplan has been approved by the ACEHD. The proposed scope of work includes the following:

Site Safety Plan

Prior to initiating field work, EIA will provide a site specific safety plan. The plan will describe the safety requirements for the proposed work. The safety plan will apply to EIA personnel and our subcontractors.

Site Reconnaissance

On 4/14/94 soil samples were taken from the excavated tank pit (see figure C1). At the time of the sampling the highest concentration of TPHg/BTEX were from the sample collected at E3. (For analytical results see figure pgs.B1,2,3.) Underground Service Alert (USA) requires boring locations to be marked on the pavement before utility company personnel arrive at the site to locate underground utilities and service lines. EIA will conduct a site reconnaissance to mark boring location before work begins. After marking boring locations, EIA will contact USA at least 72 hours prior to commencing field activities.

Regulatory Permits

Prior to initiating field work, EIA will submit a permit application to the Alameda County Flood Control Division Zone 7 to drill one soil boring at the site. Field work will not begin until the permit has been issued.

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Engine Research Company
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Underground Service Alert (USA) requires boring locations to be marked on the pavement before utility company personnel arrive at the site to locate underground utilities and service lines. EIA will conduct a site reconnaissance to mark boring location before work begins. After marking boring locations, EIA will contact USA at least 72 hours prior to commencing field activities.

Regulatory Permits

Prior to initiating field work, EIA will submit a permit application to the Alameda County Flood Control Division Zone 7 drill one soil boring at the site. Field work will not begin until the permit has been issued.

Soil Borings

EIA proposes drilling one soil boring in the vicinity of Soil sample E3 (Figure C1) to evaluate the vertical extent of hydrocarbon-impacted soil (B-1) north of E3. The anticipated vertical depth of borings B-1 is anticipated to be 22 feet below grade. The proposed soil boring locations is shown on Figure C1.

EIA proposes drilling one vertical soil boring to extent of hydrocarbon-impacted soil, if any, in the vicinity of the three former tanks adjacent to the sidewalk/street. The Boring will be drilled with the CME-75 or equivalent truck mounted drill rig equipped with hollow-stem augers. Augers will be steam cleaned before drilling and between drilling the boring to minimize the possibility of cross-contamination. Drill cuttings and rinsate water from the borings will be placed 55-gallon 17H steel drums approved by the Department of Transportation (DOT). The drums will be labeled according to content and will be stored on site pending disposal of the cuttings and rinse water. Disposal documentation for the soil and water will be included in an Appendix to a report summarizing the work.

The sample will be described at the time of collection by EIA geologist, using the Unified Soil Classification System. Soil description for the boring will be presented on the boring logs, which will be included in an Appendix to the report.

Soil sampling methods will be collected by advancing the boring to a point just above the sampling depth and then driving a California-modified, split-spoon sampler into the soil through the hollow center of the auger. The sampler, containing brass sample tubes, will be driven 18 inches into the ground with a standard 140 pound hammer repeatedly dropped 30 inches. The number of blows to drive the sampler each 6-inch increment will be counted and recorded on the Boring Logs to evaluate the relative consistency of the soil.

The soil samples will be removed from the sampler and sealed in their brass sample tubes with Teflon sheeting and plastic caps. The samples then will be labeled and placed in a pre-cooled container. A chain-of-custody protocol will be followed throughout the field and laboratory official laboratory results will be included an Appendix to the Report.

Backfilling Boring

The Boring will be backfilled in accordance to State and Local regulations. A cement bentonite grout will be used to backfill the borehole from the total depth to grade.

Groundwater Sampling

EIA will check the new boring for floating product and measure water levels and product thickness, if present. If need be, EIA will purge water until pH, conductivity, temperature, and turbidity stabilizes. Purge water will be stored onsite in DOT approved 55-gallon 17H drums, pending disposal. Groundwater samples will be collected with a disposable bailer. The bailer will be lowered approximately 2 feet into groundwater to retrieve a sample. The water samples will be stored in chilled, 40 milliliter glass vials. Each sample will be promptly sealed with Teflon-lined cap, checked for absence of headspace, labeled, and placed in a pre-cooled container. The bailer will be washed with an Alconox solution and rinsed with distilled before disposal.

A chain-of-custody Record will be initiated in the field and will accompany the water samples to a California-certified Laboratory. This chain-of-custody protocol will be followed throughout the field and Laboratory procedures.

ANALYTICAL METHODS

The soil sample will be analyzed in accordance with ACEHD guidelines. Soil sample will be analyzed as follows:

Boring B-1: 5 foot intervals (sample taken at 13-14 feet below grade in adjacent area where highest detectable hydrocarbons concentrations near E3). Assumed soil-water interface at 22 feet (GW), with one groundwater sample taken at approx. 22-24 feet.

Soil sample will be analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA method 8015 and for Benzene, Toluene, Ethlybenzene, and total Xylene isomers (BTEX) by Method 8020.

Groundwater samples will be analyzed for TPHd by modified EPA Method 8015 and for BTEX by EPA Method 602. In addition, EIA will prepare and analyze one travel and one equipment blank water samples for BTEX by EPA Method 602.

REPORT PREPARATION

A report summarizing the field and laboratory procedures, and laboratory results will be supplied to Engine Research Company (ERC), upon completion of proposed work. Upon receiving ERC approval, EIA will forward copies of the report to the lead regulatory agency, the ACEHD.

Hayward, California 94545
Telephone (510) 783-8560
Facsimile (510) 783-1512

CHAIN OF CUSTODY RECORD

A1

4305

Proj.No. | Project Name: Excavation / Tanks

Company Name and Address: Max's Auto Repair, 508 E. Lewelling Blvd, San Lorenzo CA 94580

Project Manager: Max Grasio

Sample ID	Date	Time	Site Location	No. of Containers	Analyses: TPH/BTEX	Analyses: Pb	REMARKS
E1	4/14/94	9:25 AM	Southwest corner	2 Brass Tube	X	X	13 ft ↓ (Bottom
E2	4/14/94	9:43 AM	Northwest corner	1 Brass Tube	X	X	12 ft ↓ (Bottom
E3	4/14/94	10:00 AM	North East corner	1-Brass Tube	X	X	12 ft ↓ (Bottom
E4	4/14/94	10:06 AM	West side - Mid	-Brass Tube			9 ft ↓ (Bottom) Hole
E5	4/14/94	10:09 AM	West side - Mid	1-Brass Tube	X	X	11 ft ↓ (Bottom
E6	4/14/94	10:22 AM	South Mid to East wall	1-Brass Tube	X	X	10 ft ↓ (Bottom wal
SP1	4/14/94	9:47 AM	Stock pile	1-Brass	X	X	3 ft below Surface
SP2	4/14/94	10:05 AM	Stock pile	1-Brass	X	X	3 ft below Surface
SP3	4/14/94	10:12 AM	Stock pile	1-Brass	X	X	3 ft below Surface

Sampled by: (signature) Scott T. Ferrara TAL	Date/Time 4/14/94 10:26 AM	Relinquished by: (signature)	Date/Time
Received by: (signature)	Date/Time	Relinquished by: (signature)	Date/Time
Received for Laboratory by: (signature) Scott T. Ferrara TAL	Date/Time 4/14/94 10:26 AM	TURNAROUND TIME Reg	

REMARKS

T/I, Soil, 1-BT each, Y-1, Reg TAT

Juliet Shin, Alameda County Health Dept., Ph# (510) 271-4530
Fax# (510) 569-4757.

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545
Telephone (510) 783-6990
Facsimile (510) 783-1512

B1

TAL

LOG NUMBER: 4305
DATE SAMPLED: 04/14/94
DATE RECEIVED: 04/14/94
DATE EXTRACTED: 04/21/94
DATE ANALYZED: 04/23/94 and 04/29/94
DATE REPORTED: 05/18/94

CUSTOMER: Max's Auto Repair
REQUESTER: Max Gracio
PROJECT: Excavation/Tanks

Sample Type: Soil

Method and Constituent:	Units	E1 Concentration	E1 Reporting Limit	E2 Concentration	E2 Reporting Limit	E3 Concentration	E3 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	1,800	500	13,000	500	94,000	7,500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	140
Toluene	ug/kg	7.6	5.0	ND	5.0	1,200	140
Ethylbenzene	ug/kg	23	5.0	96	5.0	590	140
Xylenes	ug/kg	74	15	200	15	38,000	420

Method and Constituent:	Units	E5 Concentration	E5 Reporting Limit	E6 Concentration	E6 Reporting Limit	SP1 Concentration	SP1 Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	950	500	ND	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	9.4	5.0	ND	5.0	ND	5.0
Xylenes	ug/kg	53	15	ND	15	33	15

Concentrations reported as ND were not detected at or above the reporting limit.

Trace Analysis Laboratory, Inc.

B2

LOG NUMBER: 4305
DATE SAMPLED: 04/14/94
DATE RECEIVED: 04/14/94
DATE EXTRACTED: 04/21/94
DATE ANALYZED: 04/23/94
DATE REPORTED: 05/18/94
PAGE: Two

Sample Type: Soil

Method and Constituent:	Units	SP2 Concentration	SP2 Reporting Limit	SP3 Concentration	SP3 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/kg	5,600	500	730	500	ND	500
Modified EPA Method 8020 for:							
Benzene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Toluene	ug/kg	ND	5.0	ND	5.0	ND	5.0
Ethylbenzene	ug/kg	25	5.0	ND	5.0	ND	5.0
Xylenes	ug/kg	24	15	47	15	ND	15

QC Summary:

% Recovery: 74 and 79
% RPD: 19 and 40

Concentrations reported as ND were not detected at or above the reporting limit.

Trace Analysis Laboratory, Inc.

B3

LOG NUMBER: 4305
DATE SAMPLED: 04/14/94
DATE RECEIVED: 04/14/94
DATE EXTRACTED: 04/26/94
DATE ANALYZED: 04/27/94
DATE REPORTED: 05/18/94
PAGE: Three

Sample Type: Soil

Method and Constituent:	Units	E1 Concentration	E1 Reporting Limit	E2 Concentration	E2 Reporting Limit	E3 Concentration	E3 Reporting Limit
EPA Method 7420: Lead	ug/kg	12,000	3,600	10,000	3,600	15,000	3,600

Method and Constituent:	Units	E5 Concentration	E5 Reporting Limit	E6 Concentration	E6 Reporting Limit	SP1 Concentration	SP1 Reporting Limit
EPA Method 7420: Lead	ug/kg	6,600	3,600	4,100	3,600	6,600	3,600

Method and Constituent:	Units	SP2 Concentration	SP2 Reporting Limit	SP3 Concentration	SP3 Reporting Limit	Method Blank Concentration	Method Blank Reporting Limit
EPA Method 7420: Lead	ug/kg	12,000	3,600	22,000	3,600	ND	3,600

QC Summary:

% Recovery: 136
% RPD: 14

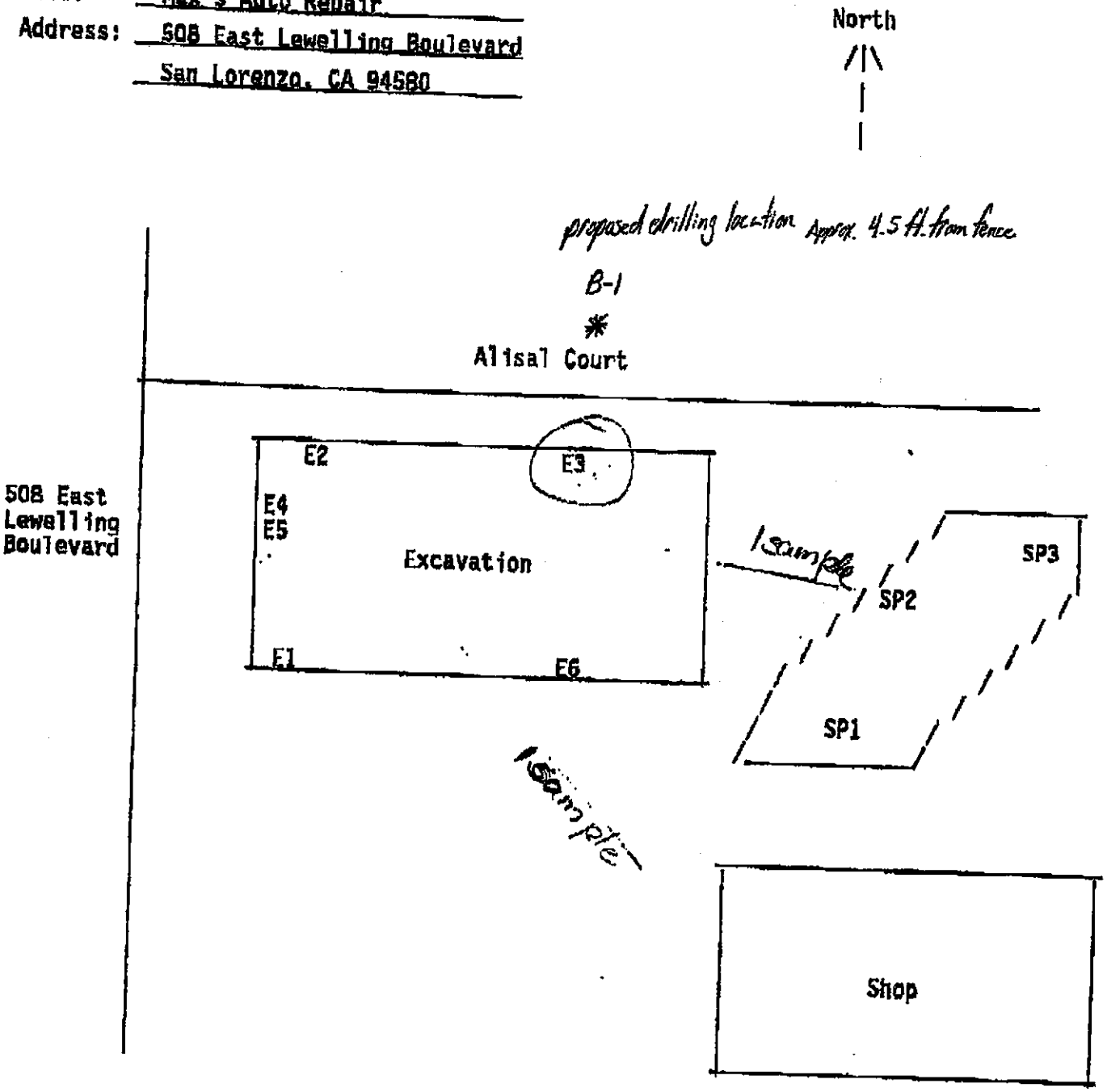
Concentrations reported as ND were not detected at or above the reporting limit.

Louis W. DuPuis
Quality Assurance/Quality Control Manager

Trace Analysis Laboratory, Inc.

Fig. C1

Site: Max's Auto Repair
Address: 508 East Lewelling Boulevard
San Lorenzo, CA 94580



Requester: Max Gracio
Customer: Max's Auto Repair
508 East Lewelling Boulevard
San Lorenzo, CA 94580

Date Sampled: 04/14/94
Log No.: 4305