# RMC LONESTAR

6601 Koll Center Parkway
P.O. Box 5252
Pleasanton, CA 94566
(415) 426-8787

91 NOV -5 AM 11:14

November 1, 1991

Mr. Scott O. Seery, Hazardous Materials Specialist
Department of Environmental Health,
Alameda County Health Agency
80 Swan Way, Rm. 200
Oakland, CA 94621

Subject: **Sunol Quarry Diesel Fuel Cleanup - Quarterly Report #4**

Dear Mr. Seery:

Since our last report dated August 1, we have completed the third quarter, 1991 groundwater testing requirement for monitoring wells RMC-2, RMC-3 and RMC-4 at this site. The relevant data are presented in Tables 1, 2 and 3 of the attached report.

Since October, 1990, we have sampled these monitoring wells six times and no analysis has exceeded current Regional Water Quality Control Board Maximum Contaminant Levels. We think that these data clearly show that there has been no significant impact to ground water from the diesel spill which occurred more than a year ago in August, 1990. Consequently, we continue to argue that no further testing is necessary and ask your approval to discontinue this ground water monitoring program. This is our second request for approval of discontinuance.

Sincerely,

Harry W. Reppert,
Director of Environmental Affairs

cc: Mr. Hossain Kazemi, RWQCB
Mr. Phil Caskey, San Francisco Water Department,
Water Quality Division, Milbrae
Mr. Jeffrey Peterson, GeoStrategies, Inc.
Mr. Louis Schipper
Mr. Rich Bier, Sunol

GeoStrategies Inc.

# SITE UPDATE

RMC Lonestar
6527 Calaveras Road
Sunol, California

700401-6

November 1, 1991

**GeoStrategies Inc.**
2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545
(510) 352-4800

November 1, 1991

RMC Lonestar
P.O. Box 5252
Pleasanton, California 94566

Attn: Mr. Harry Reppert
Director of Environmental Affairs

Re: SITE UPDATE
RMC Lonestar
6527 Calaveras Road
Sunol, California

Gentlemen:

This site update has been prepared by GeoStrategies Inc. (GSI) and presents the results of the 1991 third quarter ground-water sampling performed by Gettler-Ryan Inc. (G-R) for the above referenced site (Plate 1). The scope of work presented in this document was performed at the request of RMC Lonestar. Field work and laboratory analysis methods were performed to comply with current State of California Water Resources Control Board guidelines.

## SITE BACKGROUND

There are currently four ground-water monitoring wells at the site; Wells Sunol-1 and RMC-2 through RMC-4 (Plates 1 and 2). Well Sunol-1 was installed by Levine-Fricke in 1989 to assess the impact to soil and groundwater of a small, localized oil and water spill. Wells RMC-2 through RMC-4 were installed by GSI in September 1990 to evaluate the impact of a 2500 gallon diesel spill to the soil and groundwater beneath the site.

Quarterly monitoring and sampling of wells RMC-2 through RMC-4 began in 1990. Ground - water samples have been analyzed for Total Petroleum Hydrocarbons calculated as Diesel (TPH-Diesel) according to EPA Method 8015 (Modified) and Benzene, Toluene, Ethylbenzene, and Toluene (BTEX) according to EPA Method 602.

## CURRENT QUARTERLY SAMPLING RESULTS

### Potentiometric Data

Prior to ground-water sampling in September 1991, depth to water-level measurements were obtained in each monitoring well using an electronic oil-water interface probe. Static ground-water levels were measured from the surveyed top of well casing and recorded to the nearest $\pm 0.01$ foot. Corresponding elevations, referenced to the project datum, are presented in Table 1. Water-level data for July 1991 were included in the GSI report dated August 1, 1991. Monthly collection of water level measurements was initiated in July, 1991. These data are included in Table 1. Water-level data were used to construct potentiometric maps for the months of August and September 1991 (Plates 3 and 4). Shallow ground-water flow beneath the site during this quarter was to the west and southwest at a calculated gradient ranging from 0.004 to 0.05. Well Sunol-1 was dry.

### Floating Product Measurements

Each well was checked for the presence of floating product using an electronic oil-water interface probe. A clear acrylic bailer was used to confirm probe results. Floating product was not detected in the wells this quarter.

### Ground-water Analytical Data

Ground-water samples were collected on September 17, 1991. The samples were analyzed for TPH-Diesel according to EPA Method 8015 (Modified) and BTEX according to EPA Method 602 by NET Pacific Inc. (NET), a State of California certified laboratory located in Santa Rosa, California.

TPH-Diesel and benzene were not detected in the wells this quarter. These data are summarized in Table 2. A chemical concentration map for TPH-Diesel and benzene is presented on Plate 5. The NET certified analytical reports are presented in Appendix A. Historical chemical analytical data are summarized in Table 3.

### Quality Control

A Quality Control (QC) sample (Trip Blank) was included in the September 17, 1991 sampling. This sample was prepared in the laboratory using organic-free water to evaluate laboratory and field handling procedures of samples. The results of QC sample analyses are presented in Table 2.

## DISCUSSION

TPH-Diesel has not been detected in the monitoring network since Wells RMC-2, RMC-3, and RMC-4 were installed.Benzene has not been detected in Wells RMC-2 or RMC-3. Benzene has only been detected in Well RMC-4 in January 1991 at 1 ppb, and in March 1991 at 0.83 ppb. TPH-Diesel and benzene were not detected in the site wells in September 1991. Given these analytical results, GSI recommends the sampling be discontinued.

If you have any questions, please call.

GeoStrategies Inc. by.

Ellen C. Fostersmith

Ellen C. Fostersmith
Geologist

John F. Vargas

REGISTERED GEOLOGIST
JOHN F. VARGAS
NO. 5046
STATE OF CALIFORNIA

John F. Vargas
Project Geologist
R.G. 5046

ECF/JFV/kjj

Plate 1. Vicinity and Site Location Maps
Plate 2. Site Plan
Plate 3. Potentiometric Map (August 21, 1991)
Plate 4. Potentiometric Map (September 17, 1991)
Plate 5. TPH-D/Benzene Concentration Map

Appendix A: Analytical Laboratory Reports and Chains-of-Custody

QC Review: RAC

TABLE 1

FIELD MONITORING DATA

| WELL NO. | MONITORING DATE | CASING DIA. (IN) | TOTAL WELL DEPTH (FT) | WELL ELEV. (FT) | DEPTH TO WATER (FT) | PRODUCT THICKNESS (FT) | STATIC WATER ELEV. (FT) | PURGED WELL VOLUMES | pH | TEMPERATURE (F) | CONDUCTIVITY (uMHOS/cm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RMC-2 | 17-Jul-91 | 2 | 42.5 | 100.00 | 33.20 | ---- | 66.80 | ---- | ---- | ---- | ---- |
| | 21-Aug-91 | 2 | 42.5 | 100.00 | 39.43 | ---- | 65.57 | ---- | ---- | ---- | ---- |
| | 17-Sep-91 | 2 | 42.5 | 100.00 | 34.98 | ---- | 65.02 | 4 | 7.53 | 68.2 | 818 |
| RMC-3 | 17-Jul-91 | 2 | 18.5 | 69.84 | 4.31 | ---- | 65.53 | ---- | ---- | ---- | ---- |
| | 21-Aug-91 | 2 | 18.5 | 69.84 | 5.24 | ---- | 64.60 | ---- | ---- | ---- | ---- |
| | 17-Sep-91 | 2 | 18.5 | 69.84 | 5.36 | ---- | 64.48 | 5 | 7.37 | 66.7 | 786 |
| RMC-4 | 17-Jul-91 | 2 | 43.0 | 101.38 | 34.50 | ---- | 66.88 | ---- | ---- | ---- | ---- |
| | 21-Aug-91 | 2 | 40.4 | 101.38 | 35.28 | ---- | 66.10 | ---- | ---- | ---- | ---- |
| | 17-Sep-91 | 2 | 40.4 | 101.38 | 31.88 | ---- | 69.50 | 5 | 7.42 | 67.8 | 816 |

Notes: 1. Static water elevations referenced to Mean Sea Level (MSL).
2. Physical parameter measurements represent stabilized values.

TABLE 2

GROUND-WATER ANALYSIS DATA

| WELL NO | SAMPLE DATE | ANALYSIS DATE | TPH-D (PPB) | BENZENE (PPB) | TOLUENE (PPB) | ETHYLBENZENE (PPB) | XYLENES (PPB) |
|---|---|---|---|---|---|---|---|
| RMC-2 | 17-Sep-91 | 23-Sep-91 | <0.05* | <0.5 | <0.5 | <0.5 | <0.5 |
| RMC-3 | 17-Sep-91 | 23-Sep-91 | <0.05* | <0.5 | <0.5 | <0.5 | <0.5 |
| RMC-4 | 17-Sep-91 | 23-Sep-91 | <0.05* | <0.5 | <0.5 | <0.5 | <0.5 |
| TB | ---- | 23-Sep-91 | <0.05* | <0.5 | <0.5 | <0.5 | <0.5 |

CURRENT REGIONAL WATER QUALITY CONTROL BOARD MAXIMUM CONTAMINANT LEVELS
Benzene 1.0 ppb  Xylenes 1,750. ppb  Ethylbenzene 680. ppb

CURRENT DHS ACTION LEVELS
Toluene 100.0 ppb

TPH-D = Total Petroleum Hydrocarbons calculated as Diesel
PPB = Parts Per Billion
PPM = Parts Per Million
TB = Trip Blank

* reported in parts per million

Note: 1. All data shown as <x are reported as ND (none detected).
2. DHS Action Levels and MCL are subject to change pending State review.

TABLE 3

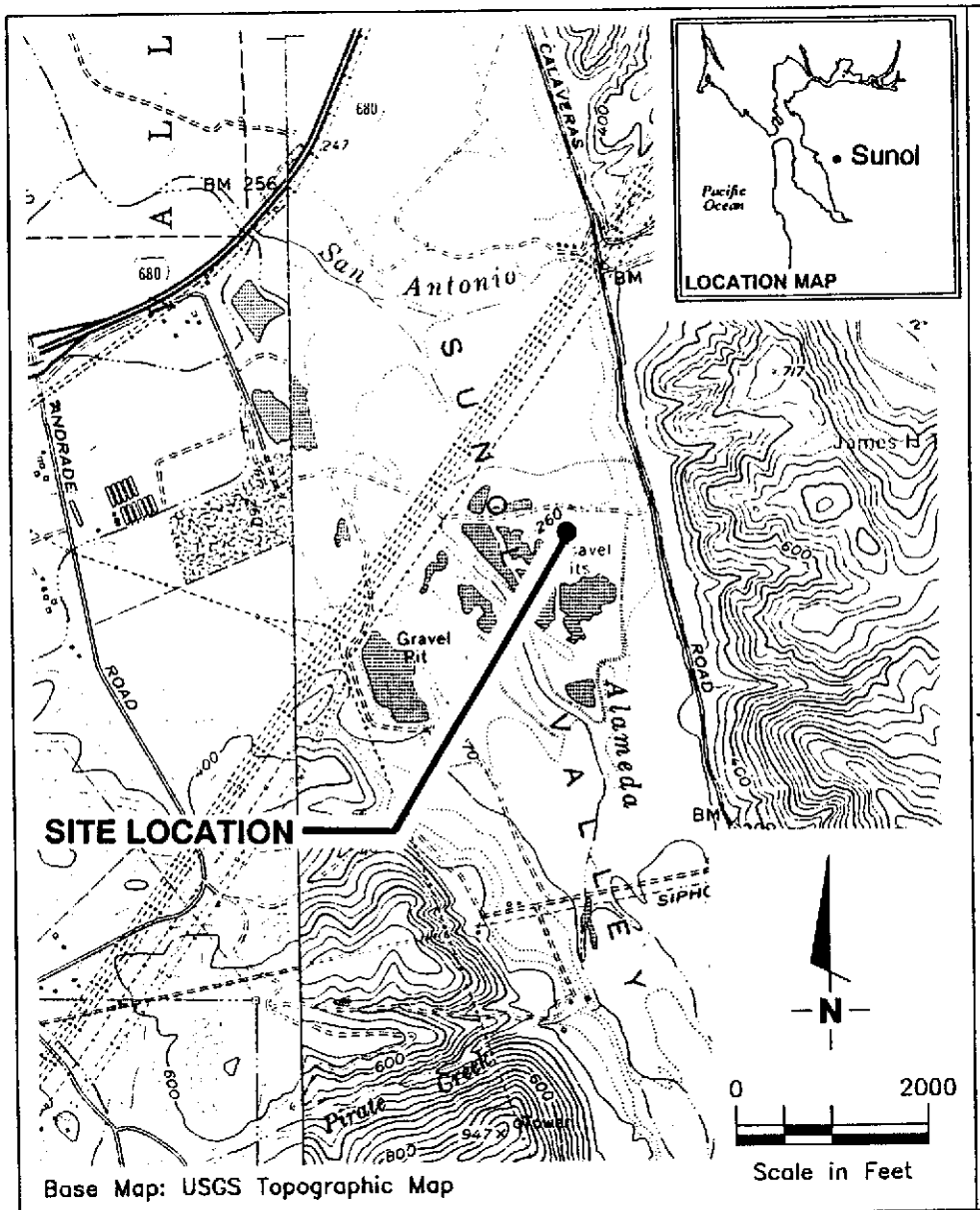
HISTORICAL GROUND-WATER QUALITY DATABASE

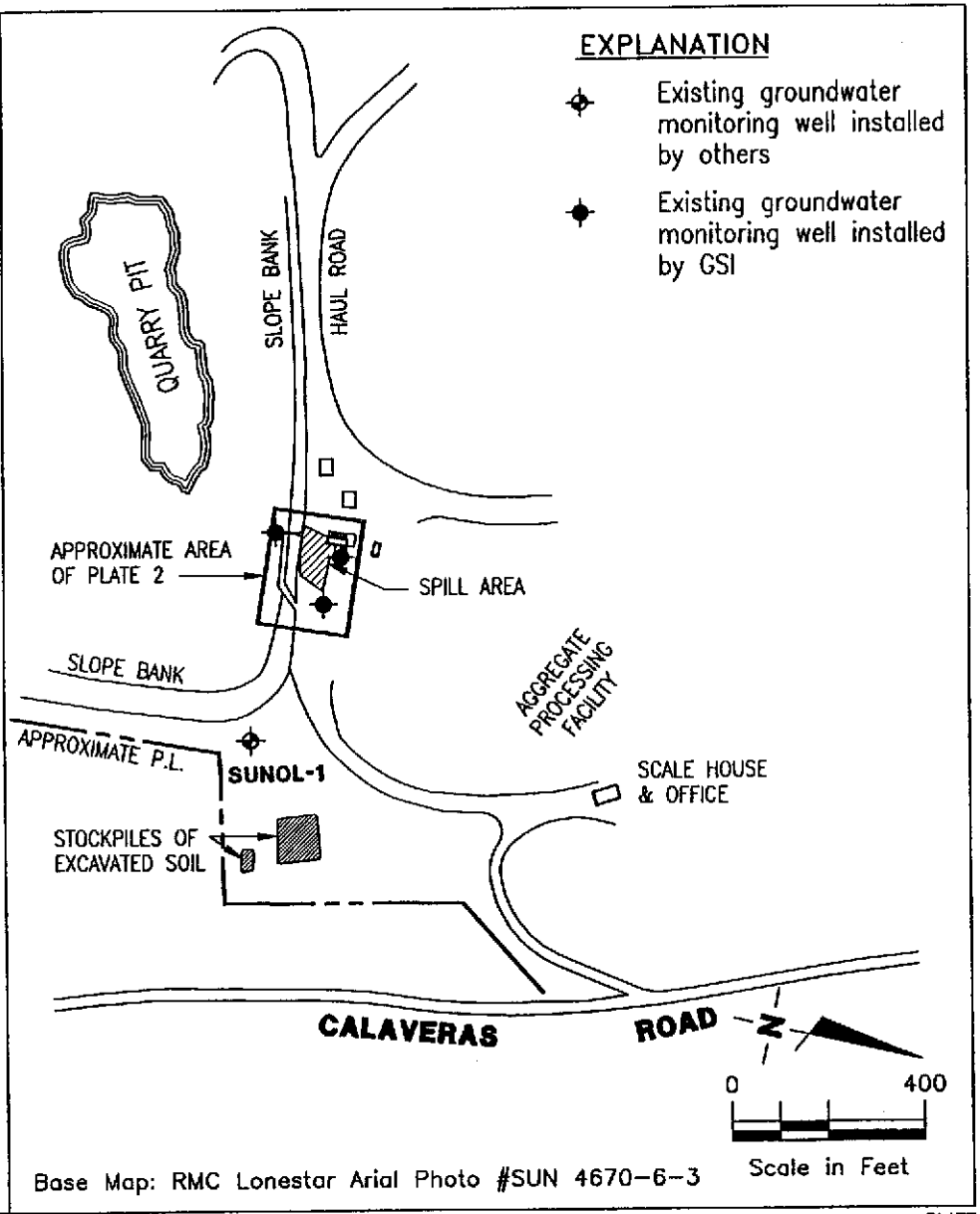
| SAMPLE DATE | SAMPLE POINT | TPH-D (PPB) | BENZENE (PPB) | TOLUENE (PPB) | ETHYLBENZENE (PPB) | XYLENES (PPB) |
|---|---|---|---|---|---|---|
| 05-Oct-90 | RMC-2 | <60. | ---- | ---- | ---- | ---- |
| 19-Jan-91 | RMC-2 | <50. | <0.5 | <0.5 | <0.5 | <0.5 |
| 20-Feb-91 | RMC-2 | <50. | <0.5 | <0.5 | <0.5 | <0.5 |
| 18-Mar-91 | RMC-2 | <50. | <0.5 | <0.5 | <0.5 | <0.5 |
| 10-Jun-91 | RMC-2 | <50. | <0.5 | <0.5 | <0.5 | <0.5 |
| 17-Sep-91 | RMC-2 | <50. | <0.5 | <0.5 | <0.5 | <0.5 |
| 05-Oct-90 | RMC-3 | <50. | ---- | ---- | ---- | ---- |
| 19-Jan-91 | RMC-3 | <50. | <0.5 | <0.5 | <0.5 | <0.5 |
| 20-Feb-91 | RMC-3 | <50. | <0.5 | <0.5 | <0.5 | <0.5 |
| 18-Mar-91 | RMC-3 | <50. | <0.5 | <0.5 | <0.5 | <0.5 |
| 10-Jun-91 | RMC-3 | <50. | <0.5 | <0.5 | <0.5 | <0.5 |
| 17-Sep-91 | RMC-3 | <50. | <0.5 | <0.5 | <0.5 | <0.5 |
| 05-Oct-90 | RMC-4 | <50. | ---- | ---- | ---- | ---- |
| 19-Jan-91 | RMC-4 | <50. | 1.0 | 0.8 | 3.1 | 1.2 |
| 20-Feb-91 | RMC-4 | <50. | <0.5 | <0.5 | <0.5 | <0.5 |
| 18-Mar-91 | RMC-4 | <50. | 0.83 | 4.4 | <0.5 | 2.3 |
| 10-Jun-91 | RMC-4 | <50. | <0.5 | 4.1 | <0.5 | 0.6 |
| 17-Sep-91 | RMC-4 | <50. | <0.5 | <0.5 | <0.5 | <0.5 |

Current Regional Water Quality Control Board Maximum Contaminant Levels
Benzene 1. ppb Xylenes 1750. ppb Ethylbenzene 680. ppb

Current DHS Action Levels Toluene 100.0 ppb

TPH-D = Total Petroleum Hydrocarbons calculated as Diesel
PPB = Parts Per Billion
NOTE: 1. DHS Action levels and MCL's are subject to change pending State of California review.
2. All data shown as <X are reported as ND (none detected).



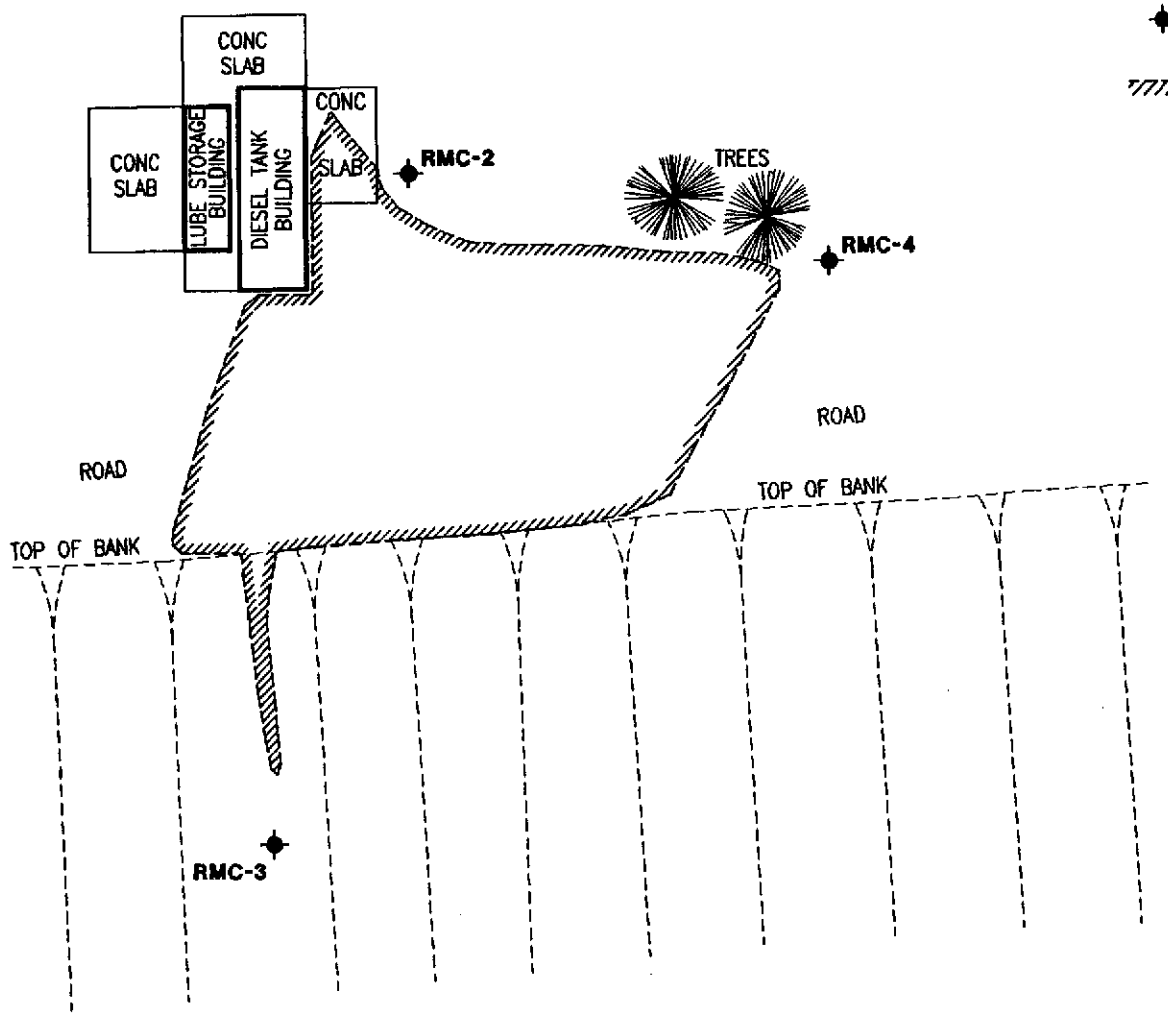

GeoStrategies Inc.

# VICINITY AND SITE LOCATION MAPS

RMC Lonestar
6527 Calaveras Road
Sunol, California

PLATE **1**

| JOB NUMBER | REVIEWED BY | DATE | REVISED DATE |
|---|---|---|---|
| 7004 | SIC | 9/90 | |




## EXPLANATION

Ground-water monitoring well

Approximate surface extent of RMC spill

N

0 40

Scale in Feet

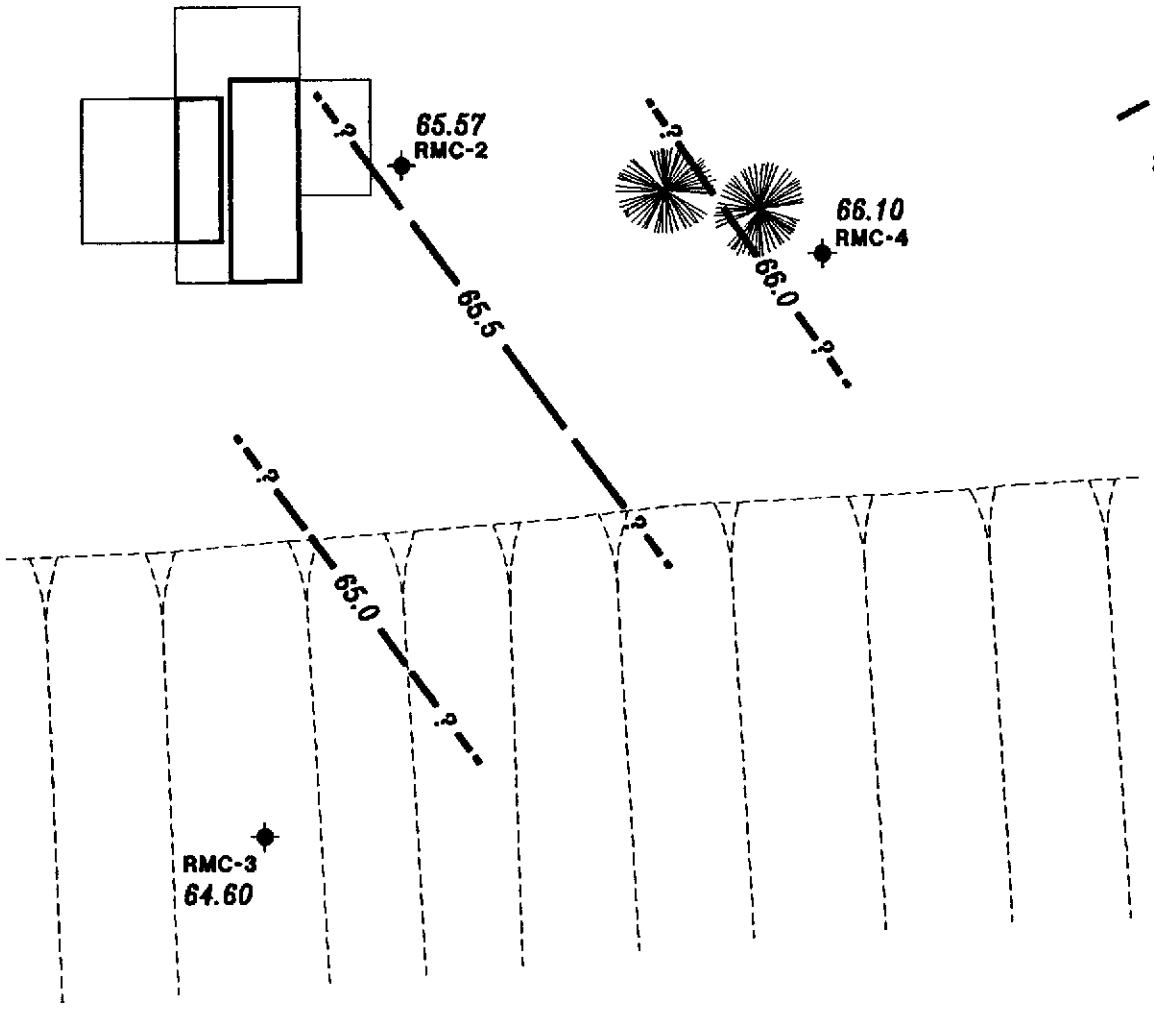
Base Map: Field observations

GeoStrategies Inc.

SITE PLAN
RMC Lonestar
6527 Calaveras Road
Sunol, California

PLATE
2

| JOB NUMBER | REVIEWED BY | DATE | REVISED DATE |
|---|---|---|---|
| 700401-6 | LRS | 11/91 | |




## EXPLANATION

- Ground-water monitoring well
- 99.99 — Ground-water elevation contour Approximate Gradient = 0.004
- 99.99 — Ground-water elevation in feet referenced to Project Datum measured on August 21, 1991

Note: Contours may be influenced by irrigation practices and/or site construction activities.

N

0 40

Scale in Feet

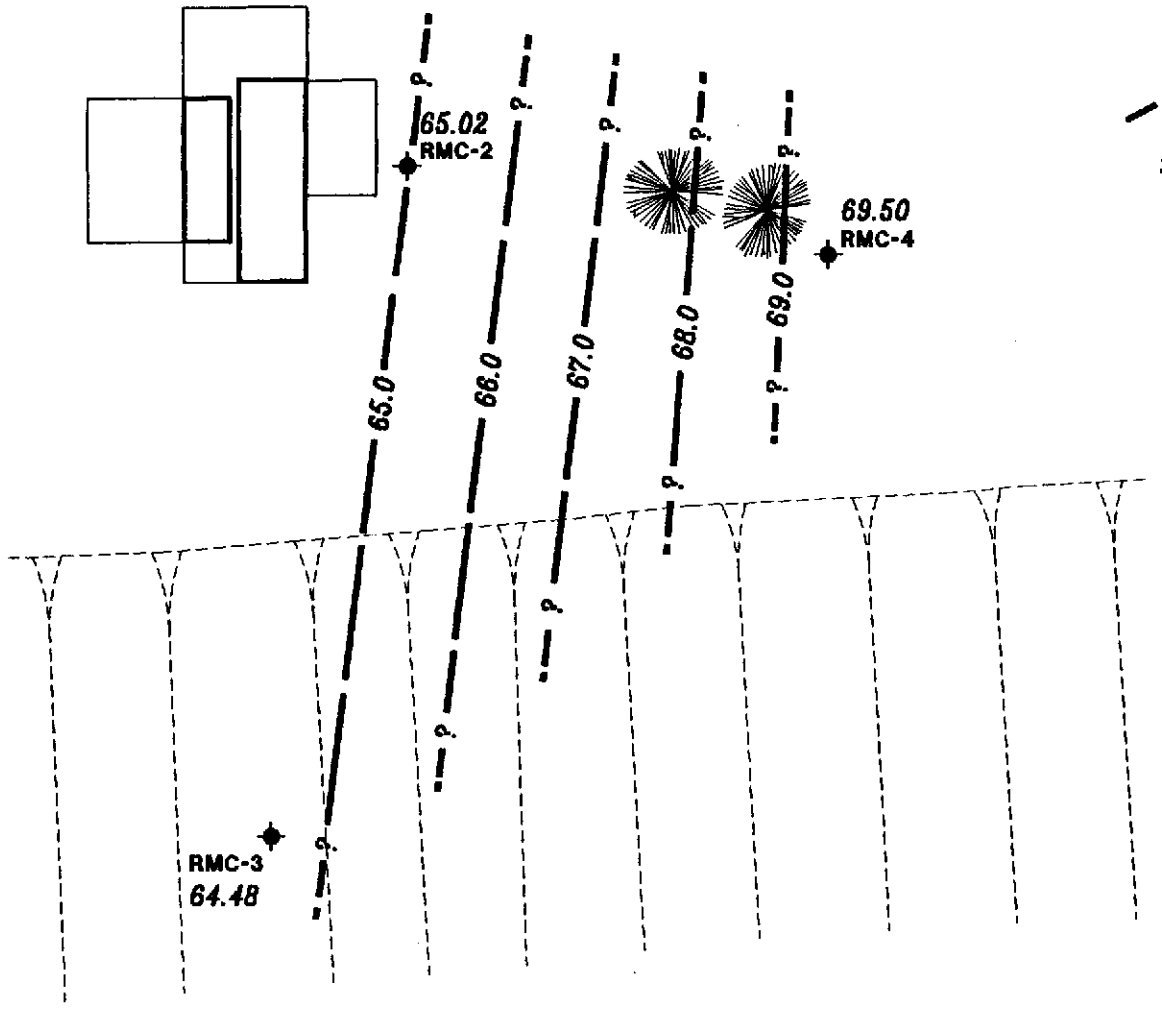
Base Map: Field observations

GeoStrategies Inc.

**POTENTIOMETRIC MAP (August 21, 1991)**
RMC Lonestar
6527 Calaveras Road
Sunol, California

PLATE **3**

| JOB NUMBER | REVIEWED BY | DATE | REVISED DATE |
|---|---|---|---|
| 700401-6 | EFS | 11/91 | |




## EXPLANATION

- Ground-water monitoring well
- 99.99 — Ground-water elevation contour Approximate Gradient = 0.05
- *99.99* — Ground-water elevation in feet referenced to Project Datum measured on September 17, 1991

Note: Contours may be influenced by irrigation practices and/or site construction activities.

N

0 40

Scale in Feet

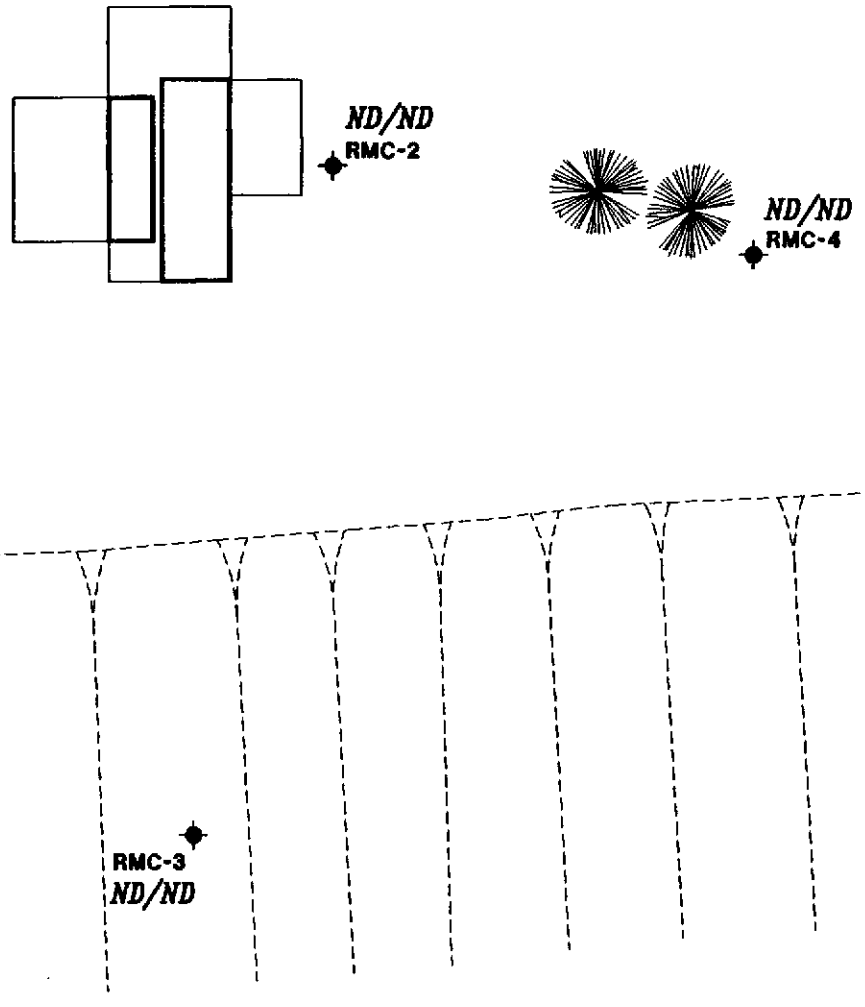
Base Map: Field observations

GeoStrategies Inc.

**POTENTIOMETRIC MAP (September 17, 1991)**
RMC Lonestar
6527 Calaveras Road
Sunol, California

PLATE **4**

| JOB NUMBER | REVIEWED BY | DATE | REVISED DATE |
|---|---|---|---|
| 700401-6 | EFS | 11/91 | |




EXPLANATION

- ✦ Ground–water monitoring well
- *99/9.9* TPH–D (Total Petroleum Hydrocarbons calculated as Diesel)/Benzene concentrations in ppb sampled on September 17, 1991
- *ND* Not Detected (See laboratory reports for detection limits)

Base Map: Field observations

GeoStrategies Inc.

**TPH–D/BENZENE CONCENTRATION MAP**
RMC Lonestar
6527 Calaveras Road
Sunol, California

PLATE **5**

| JOB NUMBER | REVIEWED BY | DATE | REVISED DATE |
|---|---|---|---|
| 700401–6 | EC-S | 11/91 | |

# APPENDIX A
# ANALYTICAL LABORATORY REPORT
# AND CHAIN-OF-CUSTODY

NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Harry Repport
RMC Lonestar
P.O. Box 5252
6601 Koll Center Pkwy
Pleasanton, CA 94566

Date: 09-27-91
NET Client Acct No: 674
NET Pacific Log No: 9888
Received: 09-19-91 0800

Client Reference Information

RMC Lonestar, 6527 Calaveras, Sunol

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack
Laboratory Manager

cc: John Vargas
Gettler-Ryan
2150 West Winton
Hayward, CA 94545

JS:rct
Enclosure(s)

NET Pacific, Inc

Client No: 674 Date: 09-27-91
Client Name: RMC Lonestar
NET Log No: 9888 Page: 2

Ref: RMC Lonestar, 6527 Calaveras, Sunol

| Parameter | Method | Reporting Limit | Descriptor, Lab No. and Results RMC-2 09-17-91 1645 97760 | RMC-3 09-17-91 1615 97761 | Units |
|---|---|---|---|---|---|
| PETROLEUM HYDROCARBONS | | | -- | -- | |
| VOLATILE (WATER) | | | -- | -- | |
| DILUTION FACTOR * | | | 1 | 1 | |
| DATE ANALYZED | | | 09-25-91 | 09-25-91 | |
| METHOD 602 | | | -- | -- | |
| Benzene | | 0.5 | ND | ND | ug/L |
| Ethylbenzene | | 0.5 | ND | ND | ug/L |
| Toluene | | 0.5 | ND | ND | ug/L |
| Xylenes, total | | 0.5 | ND | ND | ug/L |
| PETROLEUM HYDROCARBONS | | | -- | -- | |
| EXTRACTABLE (WATER) | | | -- | -- | |
| DILUTION FACTOR * | | | 1 | 1 | |
| DATE EXTRACTED | | | 09-22-91 | 09-22-91 | |
| DATE ANALYZED | | | 09-23-91 | 09-23-91 | |
| METHOD GC FID/3510 | | | -- | -- | |
| as Diesel | | 0.05 | ND | ND | mg/L |

NET Pacific, Inc

Client No: 674
Client Name: RMC Lonestar
NET Log No: 9888

Date: 09-27-91
Page: 3

Ref: RMC Lonestar, 6527 Calaveras, Sunol

| Parameter | Method | Reporting Limit | Descriptor, Lab No. and Results: RMC-4 09-17-91 1500 97762 | Trip Blank 09-17-91 97763 | Units |
|---|---|---|---|---|---|
| PETROLEUM HYDROCARBONS | | | -- | -- | |
| VOLATILE (WATER) | | | -- | -- | |
| DILUTION FACTOR * | | | 1 | 1 | |
| DATE ANALYZED | | | 09-25-91 | 09-25-91 | |
| METHOD 602 | | | -- | -- | |
| Benzene | | 0.5 | ND | ND | ug/L |
| Ethylbenzene | | 0.5 | ND | ND | ug/L |
| Toluene | | 0.5 | ND | ND | ug/L |
| Xylenes, total | | 0.5 | ND | ND | ug/L |
| PETROLEUM HYDROCARBONS | | | -- | -- | |
| EXTRACTABLE (WATER) | | | -- | -- | |
| DILUTION FACTOR * | | | 1 | 1 | |
| DATE EXTRACTED | | | 09-22-91 | 09-22-91 | |
| DATE ANALYZED | | | 09-23-91 | 09-23-91 | |
| METHOD GC FID/3510 | | | -- | -- | |
| as Diesel | | 0.05 | ND | ND | mg/L |

NET Pacific, Inc

Client Acct: 674
Client Name: RMC Lonestar
NET Log No: 9888

Date: 09-27-91
Page: 4

Ref: RMC Lonestar, 6527 Calaveras, Sunol

QUALITY CONTROL DATA

| Parameter | Reporting Limits | Units | Cal Verf Stand % Recovery | Blank Data | Spike % Recovery | Duplicate Spike % Recovery | RPD |
|---|---|---|---|---|---|---|---|
| Diesel | 0.05 | mg/L | 97 | ND | 91 | 92 | 1.1 |

QUALITY CONTROL DATA

| Parameter | Reporting Limits | Units | Cal Verf Stand % Recovery | Blank Data | Spike % Recovery | Duplicate Spike % Recovery | RPD |
|---|---|---|---|---|---|---|---|
| Benzene | 0.5 | ug/L | 86 | ND | 102 | 93 | 9.0 |
| Toluene | 0.5 | ug/L | 85 | ND | 102 | 98 | 4.7 |

COMMENT: Blank Results were ND on other analytes tested.

NET Pacific, Inc

## KEY TO ABBREVIATIONS and METHOD REFERENCES

| | | |
|---|---|---|
| < | : | Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit. |
| * | : | Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values). |
| ICVS | : | Initial Calibration Verification Standard (External Standard). |
| mean | : | Average; sum of measurements divided by number of measurements. |
| mg/Kg (ppm) | : | Concentration in units of milligrams of analyte per kilogram of sample, (parts per million). |
| mg/L | : | Concentration in units of milligrams of analyte per liter of sample. |
| mL/L/hr | : | Milliliters per liter per hour. |
| MPN/100 mL | : | Most probable number of bacteria per one hundred milliliters of sample. |
| N/A | : | Not applicable. |
| NA | : | Not analyzed. |
| ND | : | Not detected; the analyte concentration is less than applicable listed reporting limit. |
| NTU | : | Nephelometric turbidity units. |
| RPD | : | Relative percent difference, 100 [Value 1 - Value 2]/mean value. |
| SNA | : | Standard not available. |
| ug/Kg (ppb) | : | Concentration in units of micrograms of analyte per kilogram of sample, (parts per billion). |
| ug/L | : | Concentration in units of micrograms of analyte per liter of sample. |
| umhos/cm | : | Micromhos per centimeter. |

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

**Gettler - Ryan Inc.** 9888 — ENVIRONMENTAL DIVISION — 2456 Chain of Custody

COMPANY RMC Lonestar JOB NO.

JOB LOCATION 6527 Calaveras

CITY Sunol CA PHONE NO.

AUTHORIZED Harry Leppert (RMC) DATE 9-17-91 P.O. NO. 3004.01

| SAMPLE ID | NO. OF CONTAINERS | SAMPLE MATRIX | DATE/TIME SAMPLED | ANALYSIS REQUIRED | SAMPLE CONDITION LAB ID |
|---|---|---|---|---|---|
| RMC-2 | 6 | Liquid | 9-17-91/16:45 | TPH(Diesel) BTXE | |
| RMC-3 | 6 | | /16:45 | | |
| RMC-4 | 6 | | /15:03 | | |
| Trip | 2 (FR) | | | BTXE TPH Diesel | |

COC Copy SEALED 9/18/91 @1900 hrs

RELINQUISHED BY: 9-18-91 RECEIVED BY: Courier 9/18/91 1057 AM

RELINQUISHED BY: Courier 9/18/91 RECEIVED BY:

RELINQUISHED BY: (UPS) RECEIVED BY LAB: Lab 9/19/91 0800

DESIGNATED LABORATORY: NET Pacific Santa Rosa DHS #:

REMARKS: Normal TAT

Report to Gettler Ryan Bill to RMC Lonestar Harry Leppert

DATE COMPLETED FOREMAN