

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
North Coast Region

Interoffice Communication

MEMORANDUM

TO: File

~~WPK~~
 PLT
 JLC
 BDK

DATE: March 4, 1981

FROM: Christie King

SUBJECT: Mercury Mines

Sonoma County at one time contained several active mercury mines. The possibility of water pollution and health hazards from these mines prompted the North Coastal Regional Water Quality Control Board to adopt waste discharge requirements for a number of mines in 1969. Since that time many of these mines have changed ownership and have become inactive. However the threat of mercury contamination to the waters in this region still exists. The following attachments contain information on the current status of mines on waste discharge requirements. Included are the names and addresses of the operator and/or owner and the date of most recent contact, location of the mine, and a brief summary of the disposition of the operation. Maps are included with highlighted locations of each mine. Information obtained from the Sonoma County Assessors Office is listed on a separate page and includes the book and page number of each mine and the owners address.

Christie King

Attachment

CK:kd

MERCURY MINES

1. OCCIDENTAL MINE

Operator: George Bagdasarian, c/o G. I. Bell (August 1969)
30554 River Road
Cloverdale, CA 95425

Location: NE of Cummisky Creek, tributary to Russian River; about 7 miles SW of Hopland; T12N, R11W, SW 1/4 of NW 1/4 of Section 9, elevation 800 feet MSL (MDB & M) (Hopland 7.5' quad).

Description & Disposition: The mine consists of an open cut bench about 150 feet long, 50 feet wide, and 50 feet high in brecciated sandstone and shale. A 60 foot shaft in the floor of the pit is reportedly in ore. Last inspection was made June 1971 at which time it was reported that the mine had been closed down for several months with no evidence of discharge. Staff unable to get in touch with owner, February 1981.

2. MT. JACKSON MINE

Operator: Bob Harden (February 1980)
Piombo Corporation
P. O. Box 749
Windsor, CA 95492 (707) 433-7951

Location: Wilson Creek, tributary to Fife Creek, tributary to Russian River; 4 miles N of Guerneville on Sweetwater Springs Road; T8N, R10W, SE 1/4 of Section 8, SW 1/4 of Section 9, NW 1/4 of Section 16, NE 1/4 of Section 17, (MDB & M) (Healdsburg 15' quad).

Description & Disposition: Mill has capacity of 90 tons of ore per 24 hours. In May 1972, the mine was closed down. Since that time the ownership has been changed to the Piombo Corporation. They currently process mine tailings. For update information on this operation, refer to Piombo Corporation, Wilson Creek Aggregate file.

3. BLACK OAK MINE #1

Operator: Edward V. Prati, et al (February 1981)
Asti, CA 95413 (707) 894-5763

26495 Redwood Highway
Cloverdale, CA 95425

Location: South side of Squaw Creek, tributary to Big Sulphur Creek, tributary to Russian River; T11N, R9W, N 1/2 of Section 2 (MDB & M) (Geysers 7.5 quad).

Description & Disposition: No information on size of operation. The mine had problems with overflows of silt into Squaw Creek from the settling ponds. According to staff records, the mine has not been in operation since February 1971. Owner contacted February 10, 1981, mine not in operation.

4. EAGLE ROCK MINE

Operator: G. William Filley (Home) 22 Battery (Office)
5455 Anza Street San Francisco, CA 94111
San Francisco, CA 94121 (415) 956-5700

Location: South side Big Sulphur Creek, tributary to Russian River; adjacent to Cloverdale - Geyser Road; T11N, R9W, SE 1/4 of Section 10, NE 1/4 of Section 15 (Geysers 7.5' quad).

Description & Disposition: A 20 ton capacity mill with several adits on the property. Staff inspection, June 1971 reported that the mine was closed down. Owner unavailable as of February 1981; law partner did not think mine was currently in operation.

5. CULVER-BEAR MINE

Operator: R. C. Dick Geothermal Corporation (February 1981)
22 Mitchell Boulevard
San Rafael, CA 94903 (415) 499-1444

Location: Mine: N branch Little Sulphur Creek, tributary to Big Sulphur Creek, tributary to Russian River; adjacent to Healdsburg - Geyser Road; T11N, R9W, SE 1/4 of Section 23, SW 1/4 of Section 24, NW 1/4 of Section 25 (Geysers 7.5' quad).

Mill: Big Sulphur Creek, tributary to Russian River, SE of Eagle Rock Mine; T11N, R9W, NE 1/4 of NW 1/4 of Section 14.

Description & Disposition: Mill capacity is 60 tons of ore per 24 hours. There are several adits on the property. As of March 1972 the mine was in operation. Owner contacted February 20, 1981, mine currently not in operation.

6. CONTACT MINE

Operator: U. G. Ikola (February 1981)
14189 Old Cazadero Road
Guerneville, CA 95446 (707) 869-3084

Location: Near Big Sulphur Creek, tributary to Russian River; adjacent to Pine Flat Road, T11N, R8W, SW 1/4 of SE 1/4 of Section 32 (Geysers 7.5' quad).

Description & Disposition: A 50 ton capacity furnace was used to treat ore. This was removed and in later years small quantities of ore were treated in retorts. The mine has not been in continuous operation since 1954. As of July 1971, the mine was not in operation but there were plans for the smelter to be used by Union Oil Company. Owner contacted by staff on February 10, 1981, mine currently not in operation.

7. EUREKA MINE

Operator: Ernest W. Frandsen, et al (February 1981)
P. O. Box 145
Healdsburg, CA 95448

Location: Big Sulphur Creek, tributary to Russian River; T11N, R8W, SW 1/4 of NE 1/4 of Section 32 (Geysers 7.5' quad).

Description & Disposition: Mine was explored intermittently since the 1900's. In 1969 development work was being done with small quantities of ore being tested by a small retort. Staff inspection in July 1971 reported the mine as closed down.

8. SOCRATES MINE

Operator: Russell R. Vought (February 1981,
442 Crocker-Sperry Drive no phone listing)
Santa Barbara, CA 93108

Location: Big Sulphur Creek, tributary to Russian River, N of Pine Flat Road;
Mine: T11N, R8W, SE 1/4 of Section 32, W 1/2 of SW 1/4 of Section 33 (Geysers 7.5' quad).

Mill: T11N, R8W, E 1/2 of Section 33 (Whispering Pines 7.5 quad).

Description & Disposition: The mill has a 40 ton per 24 hour day capacity. It has 6000' of underground drifts and audits. There is an open cut 1/4 mile long and 150' deep. As of June 1971, staff reports the mine closed down. Staff unable to get in touch with current owner (February 1981).

9. MOHAWK MINE

MOHAWK MINES B

Operator: James Thiessen
P. O. Box 6
Healdsburg, CA 95448

James Thiessen
423 Broadway
Petaluma, CA 94952 (707) 762-8188

Location: Big Sulphur Creek, tributary to Russian River; adjacent to Pine Flat Road, T11N, R8W, SW 1/4 of SW 1/4 of Section 33, elevation 3,200' MSL (Geysers 7.5' quad).

Description & Disposition: A small operation in a relatively new location. In 1969 not actively mining but doing small amount of exploration. Staff inspection in July 1971 found mine no longer in operation. Staff contacted owner on February 10, 1981, mine not in operation.

10. BUCKEYE MINE

Operator: Edward Prati, et al (February 1981)
26495 Redwood Highway
Cloverdale, CA 95425 (707) 894-5763

Location: Big Sulphur Creek, tributary to Russian River, T11N, R9W, SW 1/4 of SW 1/4 of Section 3 (Geysers 7.5' quad).

Disposition: Staff contacted owner February 10, 1981, mine not in operation.

11. CRYSTAL MINE

Operator: Charles John Neiss (February 1981,
320 W. Sierra Avenue no phone listing)
Cotati, CA 94928

Location: Little Sulphur Creek, tributary to Big Sulphur Creek, tributary to Russian River; west of Pine Flat Road, T10N, R8W, NW 1/4 of NW 1/4 of Section 5 (Geysers 7.5' quad).

Disposition: Unknown. As of February 1981, staff unable to get in contact with owner.

12. CLOVERDALE MINE

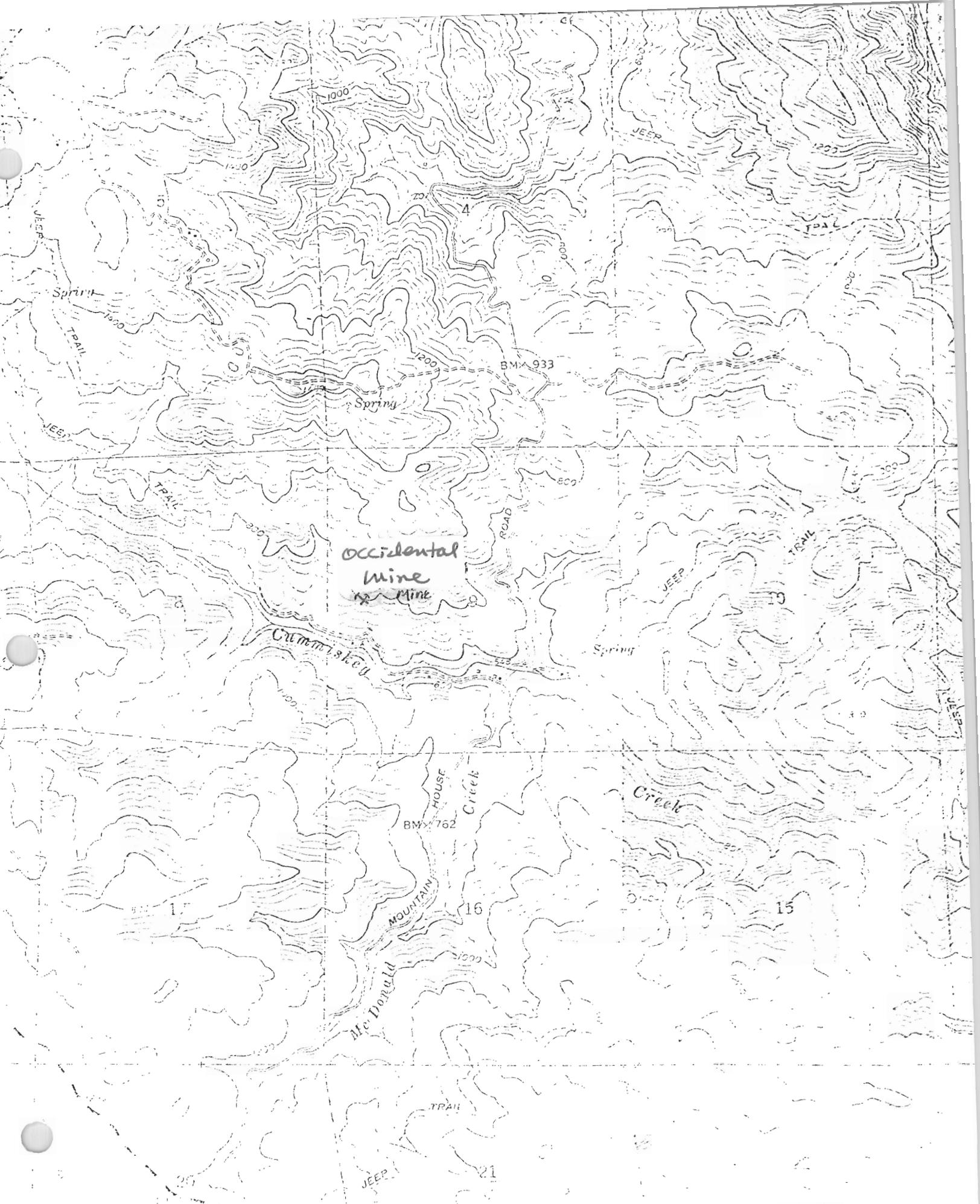
Operator: Edward V. Prati
26495 Redwood Highway
Cloverdale, CA 95425

Location: Big Sulphur Creek, tributary to Russian River, T11N, R8W, SW 1/4 of SW 1/4 of Section 4 (Geysers 7.5' quad).

13. BUCKMAN MINE

Location: Little Sulphur Creek, tributary to Big Sulphur Creek, tributary to Russian River; adjacent to Healdsburg - Geyser Road. Part of mining operation drains directly to Big Sulphur Creek. T11N, R9W, NE 1/4 of Section 23, NW 1/4 of Section 14 (Geysers 7.5' quad).

| <u>MINE</u> | <u>ASSESSORS BOOK & PAGE NO.</u> | <u>OWNER/ADDRESS</u> |
|-------------------|--------------------------------------|--|
| Black Oak Mine #2 | 200-042 (7) | Black Oak Mining Corp. c/o Edward Haczela 129C N. Cloverdale Blvd. Cloverdale, CA 95425 |
| Buckeye Mine | 200-042 (2) | Edward Prati, et al 26495 Redwood Highway Cloverdale, CA 95425 |
| Cloverdale Mine | 117-140 (11) | Edward Prati 26495 Redwood Highway Cloverdale, CA 95425 |
| Contact Mine Ext. | 200-034 | Uno G. Ikola 14189 Old Cazadero Road Guerneville, CA 95446 |
| Crystal Mine | 200-014 | Charles John Neiss 320 W. Sierra Avenue Cotati, CA 94928 |
| Culver-Baer Mine | 141-020 (13, 6) | R. C. Dick Geothermal Corp. 22 Mitchell Boulevard San Rafael, CA 94903 |
| Eagle Rock Mine | 117-150 (10) | G. William Filley 5455 Anza Street San Francisco, CA 94121 |
| Eureka Mine | 141-040 (04) | Ernest W. Frandsen, et al P. O. Box 145 Healdsburg, CA 95448 |
| Mohawk Mine | 200-034 | James H. Thiessen P. O. Box 6 Healdsburg, CA 95448 |
| Socrates Mine | 141-040 (10) | Russel R. Vought 442 Crocker-Sperry Drive Santa Barbara, CA 93108 |



EM 1225

OVERDALE 78 M. S.

1:50,000 FEET

OVERDALE 78 M. S.

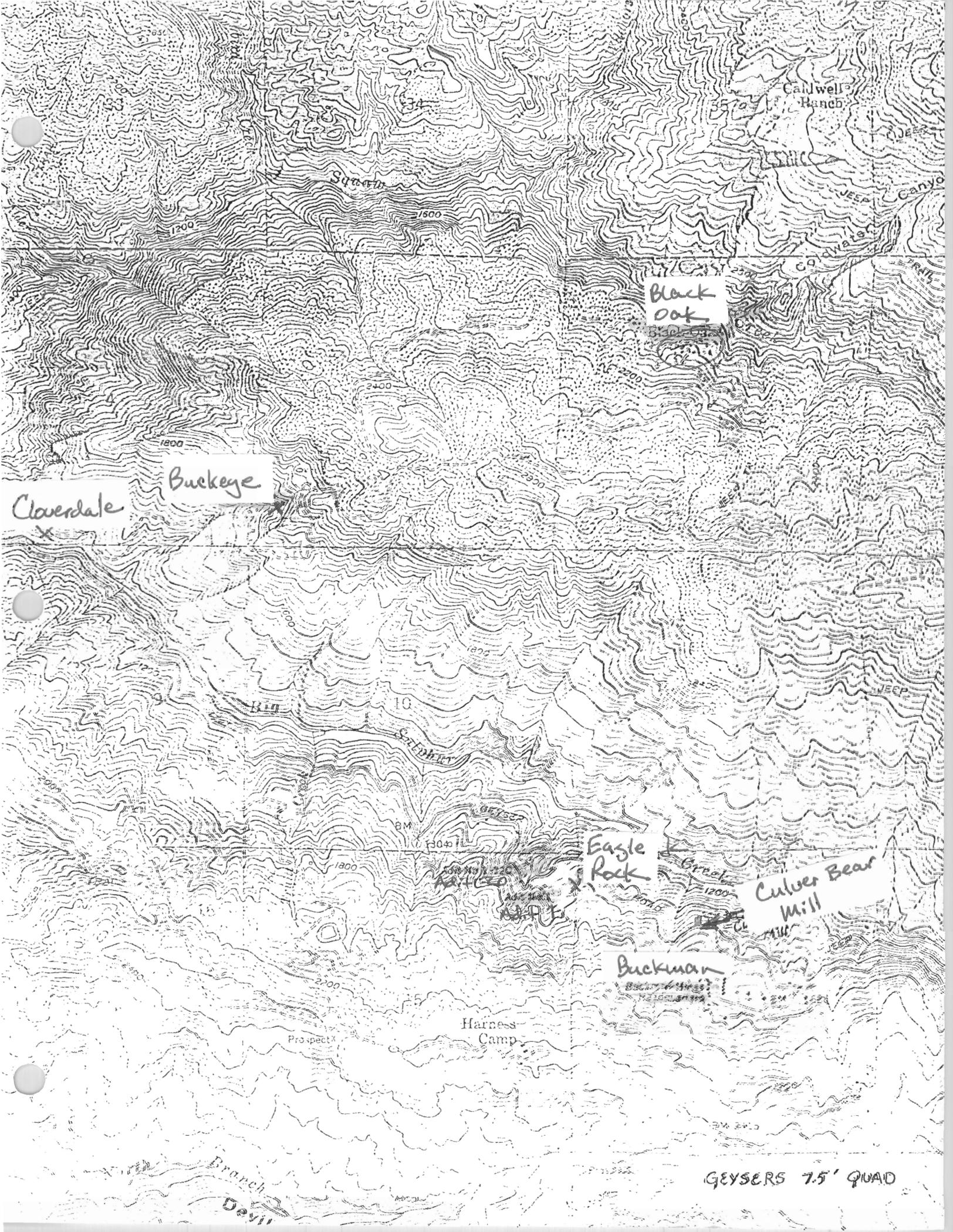
SCALE 1:50,000

Holland 7.5' series quad



Mt. Jackson
(Sonoma mine)
Mt Jackson

HEALDSBURG 15' QUAD.



Caldwell Ranch

Sagehen

Canyon

Black Oak

Buckeye

Cloverdale

Eagle Rock

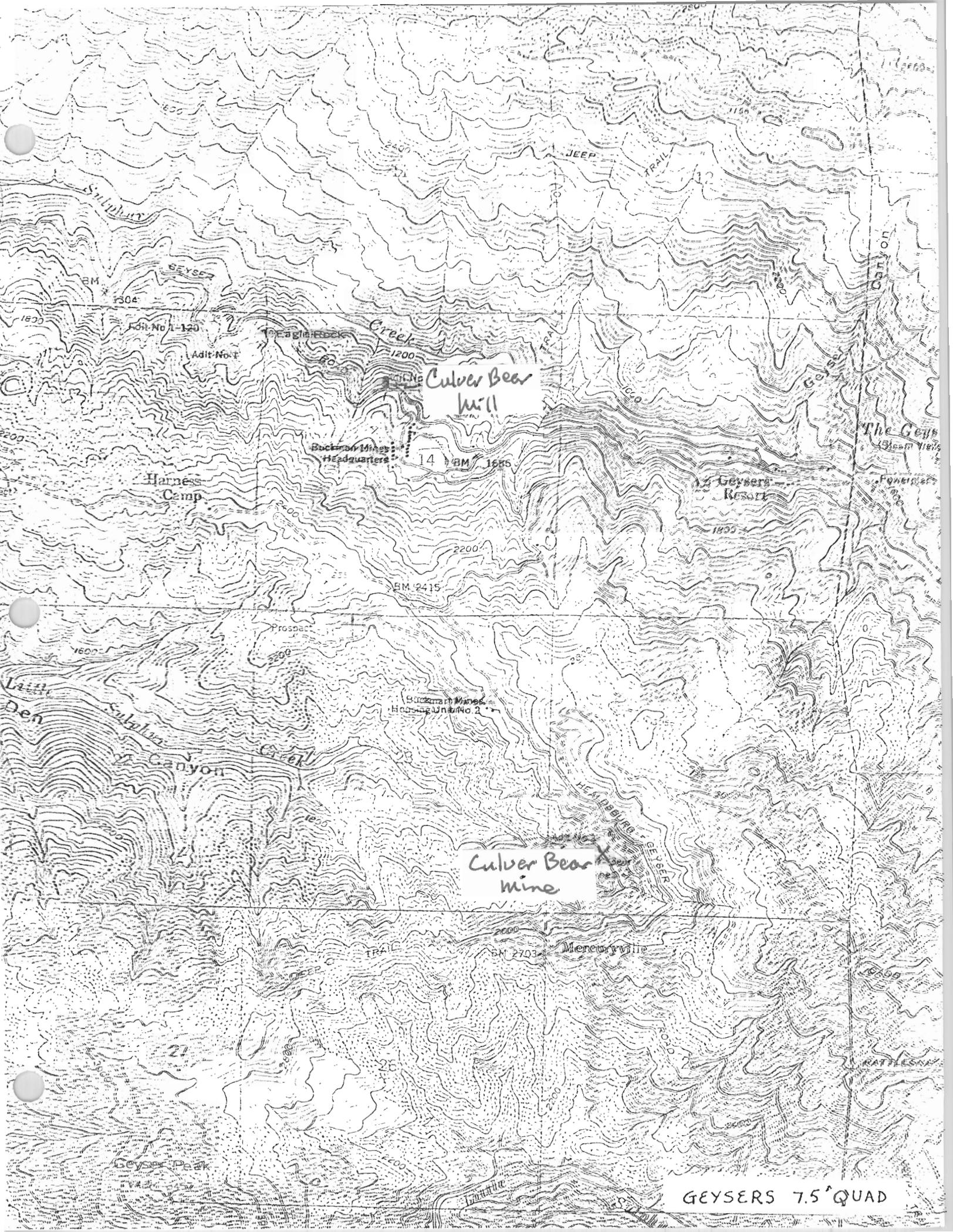
Culver Bear Mill

Buckman

Harnes Camp

Devil Branch

GEYSERS 7.5' QUAD



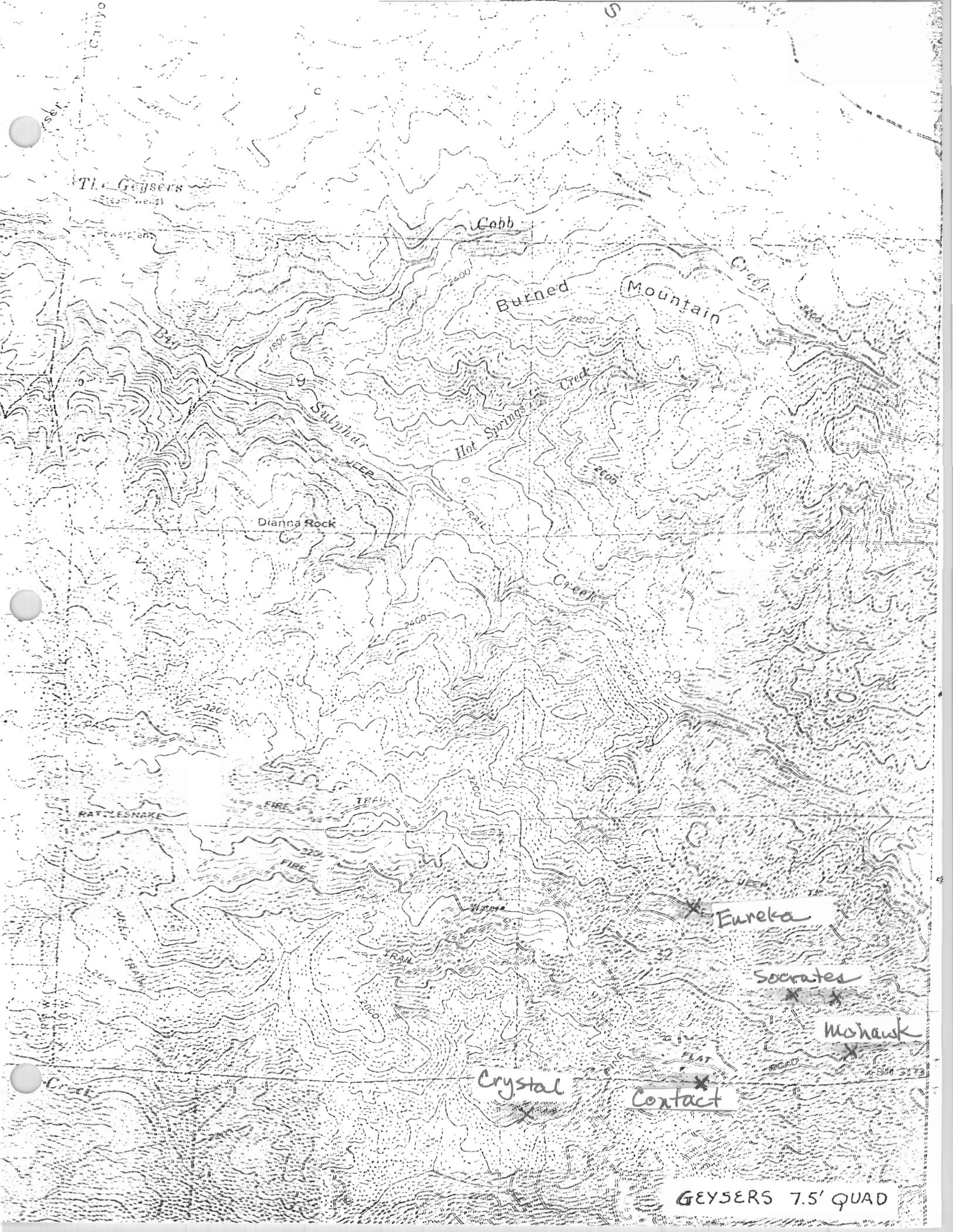
Culver Bear Mill

14 BM 1685

Culver Bear Mine

2703 Mercuryville

GEYSERS 7.5' QUAD



The Geysers

Cobb

Burned Mountain

Hot Springs Creek

Salphar Creek

Dianna Rock

RATTLESNAKE TRAIL

Eureka

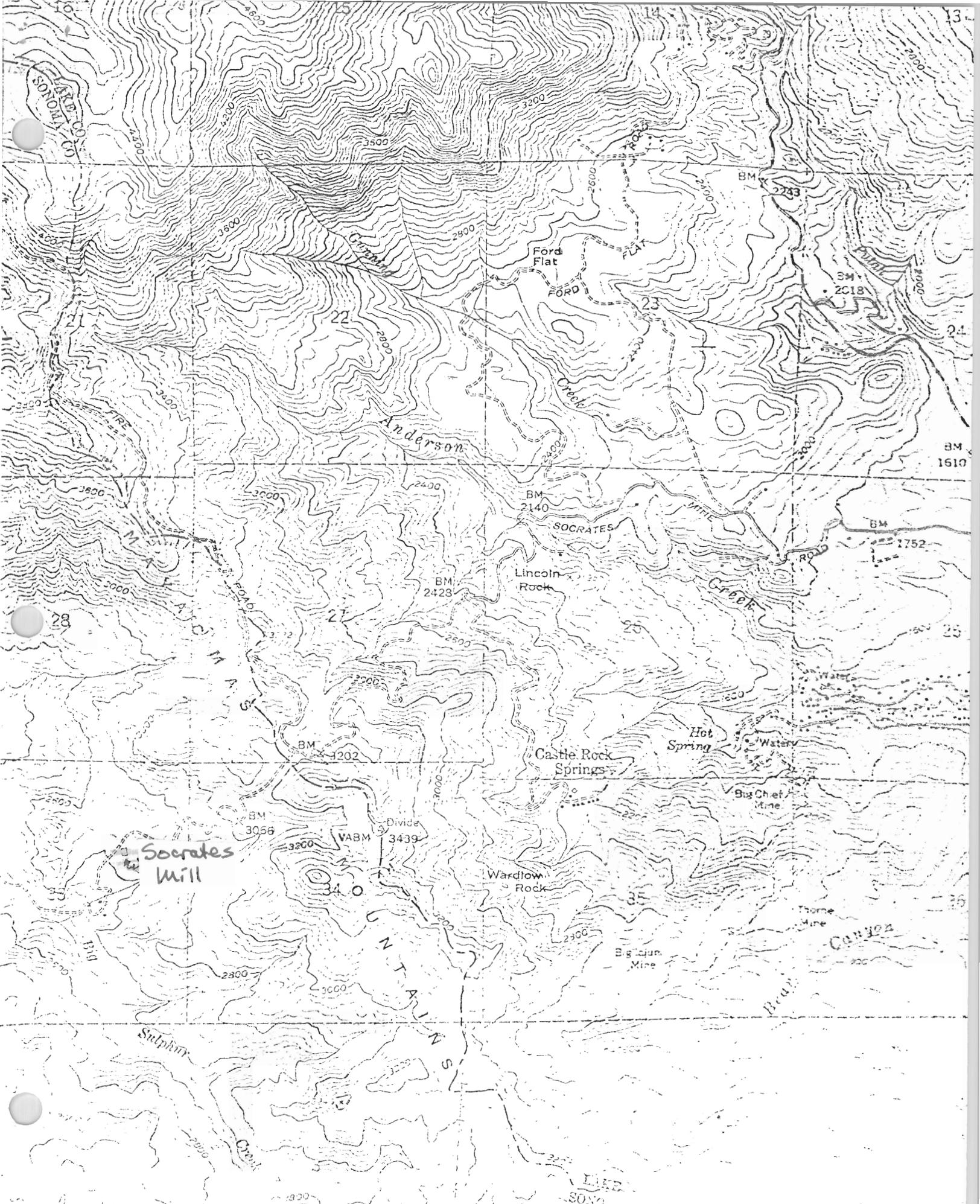
Socrates

Mohawk

Crystal

Contact

GEYSERS 7.5' QUAD



Whispering Pines 7.5' Quad

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
NORTH COAST REGION**

 1000 CODDINGTOWN CENTER
 SANTA ROSA, CALIFORNIA 95401
 Phone: 707—545-2620

FILE NOTE

RE: Mercury analysis on insects and fish at Big Sulphur Creek bridge downstream of Squaw Creek, May 21, 1981

On May 21, 1981, Christi King and I obtained biological samples from Big Sulphur Creek at the bridge downstream of Squaw Creek (map attached). Insect samples were collected by kick screen and fish samples by electrofisher unit. Selected liver and flesh for analysis was removed with acid-washed stainless steel instruments, washed with deionized water and frozen. Whole fish samples were frozen.

Samples obtained and results are listed below:

| Sample ID | Sample Description | ug/g Mercury |
|-----------|---|--------------|
| BSC-I | Mayflies and true bugs | 0.056 |
| BSC-RA | 15 Roach*whole fish;TL=57.9mm ave, 50-63 range, s=3.13 | 0.07 |
| BSC-RB | 10 Roach*whole fish;TL=103.2 mm ave, 90-124 range, s=9.16 | 0.54 |
| BSC-SGAF | 4 Trout*flesh w/ skin;TL=147.5 mm ave, 133-158 range, s=11.73 | 0.21 |
| BSC-SGAL | Livers from BSC-SGAF fish | 0.005** |
| BSC-SGBF | 2 Trout*flesh w/ skin;TL=182,193 mm | 0.17 |
| BSC-CAF | 2 Suckers*flesh w/ skin;TL=250, 283 mm | 0.11 |
| BSC-CAL | Livers from BSC-CAF fish | 0.10 |
| BSC-CBF | 3 Suckers*flesh w/ skin;TL=155, 170, 184 mm | 0.20 |
| BSC-CBL | Livers from BSC-CBF fish | 0.025 |

* Roach = Hesperoleucas sp.; Trout = Salmo gairdneri; Sucker = Catostomus occidentalis

** value was "less than"

Robert R. Klamt
 Environmental Specialist

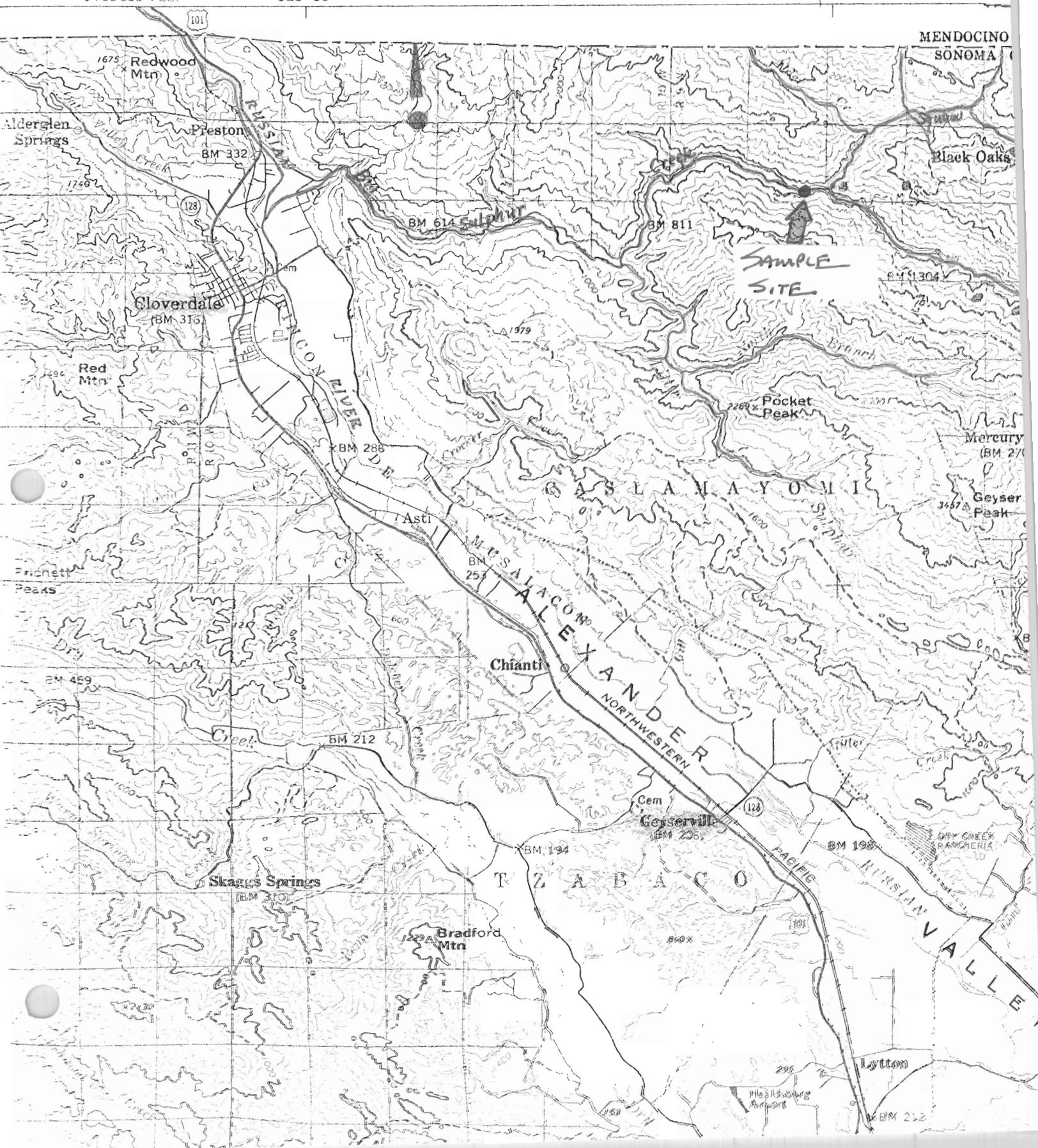
BIG SULPHUR CREEK SAMPLE SITE - MAY 21, 1981

1 700 000 FEET

123°00'

51

1 750 000 FEET



MENDOCINO
SONOMA

1675 Redwood Mtn

Alderglen Springs

Preston

Cloverdale

Red Mtn

Fritchett Peaks

Skaggs Springs

Bradford Mtn

Black Oaks

SAMPLE
SITE

Pocket Peak

Mercury

Geyser Peak

Chianti

Geyserville

Lytton

148

GASLANAYOMI
ALEXANDER
NORTHWESTERN
T Z A B A C O
RUNSAN VALLE

BM 614 Sulphur

BM 811

BM 1304

BM 285

Asti

BM 253

BM 212

BM 194

BM 236

BM 198

BM 212

Pile Hill Babbling
Airport



435 Tesconi Circle

Santa Rosa, California 95401

707-526-7200

TO: Bob Klamt
 FOR: California Water Quality Control Board, NCR
 SERIES: 0124794773-4783
 PRESERVATION: EPA
 RECEIVED: 26 MAY 81
 ANALYSIS: 17 - 19 JUN 81
 REPORT: 23 JULY 81

WATER QUALITY CONTROL BOARD REGION I
 JUL 24 '81
 REPLY
 GLT
 DS
 DLS
 CP
 CRJ
 FR
 TV
 AW
 SW
 PH
 BB

REPORT OF ANALYSIS

| Descriptor | Lab No. | Total Mercury (ug/g) |
|------------|---------|----------------------|
| BSC-I | 4773 | 0.056 |
| BSC-RA | 4774 | 0.17 |
| BSC-RB | 4775 | 0.54 |
| BSC-SGAF | 4776 | 0.21 |
| BSC-SGAL | 4777 | <0.005 |
| BSC-SGBF | 4778 | 0.17 |
| BSC-SGBL | 4779 | 0.068 |
| BSC-CAF | 4780 | 0.11 |
| BSC-CAL | 4781 | 0.10 |
| BSC-CBF | 4782 | 0.20 |
| BSC-CBL | 4783 | 0.025 |

Greg Anderson
 Greg Anderson, Director
 Analytical Laboratories

/hs

Bryant's Creek - 5/21/81 - @ Bridge to Squaw Lake

Insect gels - BSC-I - mayflies + tracheids

Fish gels - BSC-PA - Roach - whole fish - 50-63 mm TL

56, 60, 50, 60, 60, 56, 58, 60,
56, 57, 61, 55, 58, 63

BSC-RB - Roach - whole fish - 90-124 mm TL

104, 111, 96, 102, 98, 102,
90, 101, 104, 124

BSC-SGAF - S. garrahi - flesh w/ skin - 133-158 mm TL

158, 153, 156, 143

BSC-SGAL - Livers from above fish

BSC-SGBF - Sg. - flesh w/ skin - 182+193 mm TL

BSC-SGBC - Livers from SGB fish

BSC-CAF - sucker - flesh w/ skin - 250, 283 mm TL ^{sacramento sucker}

BSC-CAL - Livers from above fish

BSC-CBF - sucker, flesh w/ skin - 155, 170, 184 mm TL

BSC-CBL - Livers from above fish

collected by Christi King + RRR