

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division  
Geosource Inc.**

|                         |                                 |                                 |                              |                       |
|-------------------------|---------------------------------|---------------------------------|------------------------------|-----------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>SO. Calif</b>        | STATE<br><b>Calif</b>           | COUNTY<br><b>Los Angeles</b> | DATE<br><b>4-8-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Cross Country</b> | WEATHER<br><b>Clear + Windy</b> |                              | LINE NO.<br><b>6</b>  |

| REC.NO. | SWEEP POINT         | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN     | TAPE RL.NO. | F I L T E R |      |     | REMARKS  |
|---------|---------------------|-----------------|---------|--------|--------------|-------------|-------------|------|-----|--|
|         |                     |                 |         |        |              |             | LOCUT       | 60 ~ | AMP |  |
| 1       | 933 Pulse           | 1 - 6 sec       |         |        | missed sweep | 779         | OUT         | IN   |     | BOT # 779 # 900 10 sec All ones.   |
| 2       | 934/935 EINT        | 2 - " "         |         |        |              |             |             |      |     | RECORDER SET AT 70-71  |
| 3       | 936/939 D.R.D.      | 4 - " "         |         |        |              |             |             |      |     | STA # 54-70 - OPEN Due to Valley.  |
| 4       | 953/954 SUM TEST    | 2 - " "         |         |        |              |             |             |      |     |  |
| 5       | 960/961 N.R.J. TEST | 2 - " "         |         |        |              |             |             |      |     |  |
| 6       | 932 Similarity      | 1 - 16 sec      | 217     | 5      |              |             |             |      |     | 30% (5 vibs, 16 Sec Sweep 20 listening 36 total) - 50' Apart 20%<br>Moveup 1st vib. 28' in front of flag.) 8 Sweeps Per Sta. |
| 7       | 001 Wind Strip      | 1 - 36 sec      | 13      |        |              |             |             |      |     |  |
| 8       | SKIP 1              | 11 - 106        | 13      |        |              |             |             |      |     | SKIP   |
| 9       | SKIP 2              | 12 - 107        | 14      |        |              |             |             |      |     | SKIP Due to WET CONDITION. STA # 2-39 SKIP   |
| 10      | 002 40              | 12-35-45-107    | 14      |        |              |             |             |      |     | 50% NOW STARTING TO SHOOT INTO THE SPREAD.   |
| 11      | 003 41              | 12-36-46-107    | 14      |        |              |             |             |      |     | 50%  |
| 12      | 004 42              | 12-37-47-107    | 14      |        | 2            |             |             |      |     | 50%  |
| 13      | 005 43              | 12-38-48-107    | 14      |        |              |             |             |      |     | 50% STOP FOR THE DAY. Due to muddy conditions  |
| 14      |                     |                 |         |        |              |             |             |      |     |  |
| 15      |                     |                 |         |        |              |             |             |      |     |  |
| 16      |                     |                 |         |        |              |             |             |      |     |  |
| 17      |                     |                 |         |        |              |             |             |      |     |  |
| 18      |                     |                 |         |        |              |             |             |      |     |  |
| 19      |                     |                 |         |        |              |             |             |      |     |  |
| 20      |                     |                 |         |        |              |             |             |      |     |  |
| 21      |                     |                 |         |        |              |             |             |      |     |  |
| 22      |                     |                 |         |        |              |             |             |      |     |  |
| 23      |                     |                 |         |        |              |             |             |      |     |  |
| 24      |                     |                 |         |        |              |             |             |      |     |  |
| 25      |                     |                 |         |        |              |             |             |      |     |  |

|  |                                |  |                            |                               |                          |
|--|--------------------------------|--|----------------------------|-------------------------------|--------------------------|
| TOTAL SETUPS                                       | TOTAL SWEEPS                   | TOTAL COVERAGE                         | TOTAL FIELD TIME           | DRIVING TIME                  | SYSTEM NO.               |
| SWEEP FREQUENCY<br>8 → 32 Hz / 16 sec              |                                | SWEEP PATTERN                          | SWEEPS PER PATTERN<br>8    | SWEEP PATTERNS PER SETUP<br>1 | PATCH PATTERN<br>     X  |
| GEOPHONES PER PATCH<br>24                          | NO. OF RECORDING PATCHES<br>96 | TYPE VIBRATOR<br>4-y 1100's<br>1-y 900 | TYPE GEOPHONE<br>FTLEV 228 | FREQUENCY<br>7.5 Hz           | STATION INTERVAL<br>165' |
| REMARKS<br>8 ms Sample Rate / 36 sec Record Length |                                |  | OBSERVER<br>R. Patten      | PARTY MGR.<br>M. Richey       |                          |
|  |                                |  | L. Davis                   |                               |                          |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division**  
Geosource Inc.

2

|                         |                                    |                                 |                              |                        |
|-------------------------|------------------------------------|---------------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>Southern California</b> | STATE<br><b>California</b>      | COUNTY<br><b>Los Angeles</b> | DATE<br><b>4-13-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt shoulder</b>    | WEATHER<br><b>Clear + windy</b> |                              | LINE NO.<br><b>6</b>   |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN      | TAPE RL.NO. | FILTER |     |     | REMARKS                                      |
|---------|-------------|-----------------|---------|--------|---------------|-------------|--------|-----|-----|--|
|         |             |                 |         |        |               |             | LOCUT  | 60~ | AMP |  |
| 1       | 933         | Pulse           |         |        | missed sweeps | 779         | OUT    | IN  |     | Recorder set Mt 70-71                        |
| 2       | 934/935     | EXT             |         |        |               |             |        |     |     | STA # 54-78 OPEN Due to cross country.       |
| 3       | 936/939     | D.R.D.          |         |        |               |             |        |     |     |  |
| 4       | 953/954     | Sum Test        |         |        |               |             |        |     |     | 5 Vib 16sec sweep 20sec last 36sec           |
| 5       | 969/961     | NRT Test        |         |        |               |             |        |     |     | TOTAL Record (8 sweep) 50' APART 20%.        |
| 6       | 932         | Similarity      | 217     | 5      |               |             |        |     |     | move up 1st Vib 28' IN FRONT OF FLAG.        |
| 7       | 006         | wind strip      | 3       |        |               |             |        |     |     | WINDS ARE 17 M.P.H. 10:00 TIME.              |
| 8       | 007         | 229             | 3       | 5      |               |             |        |     |     | Vibs ONE mile OFF SET, Vibs Vibrating.       |
| 9       | 008         | 229 1/2         | 4       |        |               |             |        |     |     | STA# FROM old LINE NO. 1, they are 165' STA. |
| 10      | 009         | 230             | 5       |        |               |             |        |     |     |  |
| 11      | 010         | 230 1/2         | 6       |        |               |             |        |     |     |  |
| 12      | 011         | 231             | 7       |        |               |             |        |     |     |  |
| 13      | 012         | 231 1/2         | 8       |        |               |             |        |     |     |  |
| 14      | 013         | 232             | 9       |        |               |             |        |     |     |  |
| 15      | 014         | 232 1/2         | 10      |        |               | 779         |        |     |     | E.O.T * 779, TAPE MKTS.                      |
| 16      | 015         | 233             | 11      |        | wind strip    | 780         |        |     |     | B.O.T * 780, 900 10sec All ones.             |
| 17      | 016         | 233             | 11      |        |               |             |        |     |     |  |
| 18      | 017         | 233 1/2         | 12      |        |               |             |        |     |     |  |
| 19      | 018         | 234             | 13      |        |               |             |        |     |     |  |
| 20      | 019         | 234 1/2         | 14      |        |               |             |        |     |     |  |
| 21      | 020         | 235             | 15      |        |               |             |        |     |     | WINDS ARE 19 M.P.H., TIME 12:00              |
| 22      | 021         | 235 1/2         | 16      |        |               |             |        |     |     |  |
| 23      | 022         | 236             | 17      |        |               |             |        |     |     |  |
| 24      | 023         | 236 1/2         | 18      |        |               |             |        |     |     |  |
| 25      | 024         | 237             | 19      |        |               |             |        |     |     |  |

|                                       |                                |  |                             |  |                               |
|---------------------------------------|--------------------------------|--|-----------------------------|--|-------------------------------|
| TOTAL SETUPS                          | TOTAL SWEEPS                   | TOTAL COVERAGE                         | TOTAL FIELD TIME            | DRIVING TIME                                       | SYSTEM NO.                    |
| SWEEP FREQUENCY<br>8 → 32 Hz / 16 sec |                                | SWEEP PATTERN<br>SEP - Remarks         |                             | SWEEPS PER PATTERN<br>8                            |                               |
| SWEPT PATTERNS PER SETUP<br>1         |                                | PATCH PATTERN<br>     x                |                             | REMARKS<br>8 ms Sample Rate / 36 sec Record Length |                               |
| GEOPHONES PER PATCH<br>24             | NO. OF RECORDING PATCHES<br>96 | TYPE VIBRATOR<br>4-Y 1100's<br>1-Y 900 | TYPE GEOPHONE<br>ETL EV 22B | FREQUENCY<br>7.5 Hz                                | STATION INTERVAL<br>165'      |
| OBSERVER<br>R. Patten                 |                                |  | PARTY MGR.<br>M. Richey     |  | LINE DIR.<br>1 TO 24<br>N → S |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division**  
Geosource Inc. 3

|                         |                                 |                                 |                              |                        |
|-------------------------|---------------------------------|---------------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>So. Calif</b>        | STATE<br><b>Calif</b>           | COUNTY<br><b>Los Angeles</b> | DATE<br><b>4-13-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt Shoulder</b> | WEATHER<br><b>Clear + windy</b> |                              | LINE NO.<br><b>6</b>   |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN   | TAPE RL.NO. | F L T E R |      |     | REMARKS  |
|---------|-------------|-----------------|---------|--------|------------|-------------|-----------|------|-----|--|
|         |             |                 |         |        |            |             | LOCUT     | 60 ~ | AMP |  |
| 1       | 025         | 237 1/2         | 18-113  | 20     | 5          | 780         | OUT       | IN   | 50% |  |
| 2       | 026         | 238             | 19-114  | 21     |            |             |           |      | 50% |  |
| 3       | 027         | 238 1/2         | 20-115  | 22     |            |             |           |      | 50% |  |
| 4       | 028         | 239             | 21-116  | 23     | 1          |             |           |      | 50% |  |
| 5       | 029         | 239 1/2         | 22-117  | 24     |            |             |           |      | 50% |  |
| 6       | 030         | 240             | 23-118  | 25     |            |             |           |      | 50% |  |
| 7       | 031         | 240 1/2         | 24-119  | 26     |            |             |           |      | 50% | WINDS ARE 18-22 MPH GUS TO 23, TIME 1:45       |
| 8       | 032         | 241             | 25-120  | 27     |            |             |           |      | 50% | Vib # 23652 Down,                              |
| 9       | 033         | 241 1/2         | 26-121  | 28     | 4          | 780         |           |      | 50% | 4 Vib 16sec SWEEP 20 Listening 36 sec TOTAL    |
| 10      | 034         | 242             | 27-122  | 29     | WIND STRIP | 781         |           |      | 60% | (8 sweep) 50' APART 2033 move UP 1st Vib 3' IN |
| 11      | 035         | 242             | 27-122  | 29     |            |             |           |      | 50% | FRONT OF FLAG.                                 |
| 12      | 036         | 242 1/2         | 28-123  | 30     |            |             |           |      | 50% | E.O. T#780, TAPE MKTS                          |
| 13      | 037         | 243             | 29-124  | 31     | 5          |             |           |      | 50% | B.O. T#781, 900 10sec ALL ONES.                |
| 14      | 038         | 243 1/2         | 30-125  | 32     |            |             |           |      | 50% | Vib#23652 BACK IN.                             |
| 15      | 039         | 244             | 31-126  | 33     |            |             |           |      | 50% |  |
| 16      | 040         | 244 1/2         | 32-127  | 34     |            |             |           |      | 50% |  |
| 17      | 041         | 245             | 33-128  | 35     |            |             |           |      | 50% |  |
| 18      | 042         | 245 1/2         | 33-128  | 35     |            |             |           |      | 50% |  |
| 19      | 043         | 246             | 33-128  | 35     |            |             |           |      | 50% |  |
| 20      | 044         | 246 1/2         | 33-128  | 35     |            |             |           |      | 50% |  |
| 21      | 045         | 247             | 33-128  | 35     |            |             |           |      | 50% |  |
| 22      | 046         | 247 1/2         | 33-128  | 35     |            |             |           |      | 50% |  |
| 23      | 047         | 248             | 33-128  | 35     | 1          |             |           |      | 50% |  |
| 24      | 048         | 248 1/2         | 33-128  | 35     |            |             |           |      | 50% |  |
| 25      | 049         | 249             | 33-128  | 35     |            |             |           |      | 50% |  |

|                     |                          |                    |                          |               |                  |
|---------------------|--------------------------|--------------------|--------------------------|---------------|------------------|
| TOTAL SETUPS        | TOTAL SWEEPS             | TOTAL COVERAGE     | TOTAL FIELD TIME         | DRIVING TIME  | SYSTEM NO.       |
| SWEEP FREQUENCY     | SWEEP PATTERN            | SWEEPS PER PATTERN | SWEEP PATTERNS PER SETUP | PATCH PATTERN |                  |
| GEOPHONES PER PATCH | NO. OF RECORDING PATCHES | TYPE VIBRATOR      | TYPE GEOPHONE            | FREQUENCY     | STATION INTERVAL |
| REMARKS             |                          |                    | OBSERVER                 | PARTY MGR.    |                  |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division**  
Geosource Inc.

4

|                         |                                 |                                 |                              |                        |
|-------------------------|---------------------------------|---------------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>SO. Calif</b>        | STATE<br><b>Calif</b>           | COUNTY<br><b>Los Angeles</b> | DATE<br><b>4-13-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt Shoulder</b> | WEATHER<br><b>Clear + windy</b> |                              | LINE NO.<br><b>6</b>   |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN   | TAPE RL.NO.       | F I L T E R |      |     | RE MARKS                          |
|---------|-------------|-----------------|---------|--------|------------|-------------------|-------------|------|-----|-----------------------------------|
|         |             |                 |         |        |            |                   | LOCUT       | 80 ~ | AMP |                                   |
| 1       | 050         | 249 1/2         | 33-128  | 35     | 5          | Misread Sweep 781 | OUT         | IN   | 50% |                                   |
| 2       | 051         | 250             | 33-128  | 35     |            |                   |             |      | 50% |                                   |
| 3       | 052         | 250 1/2         | 33-128  | 35     |            | 781               |             |      | 30% | E.O. T # 781 TAPE MKTS            |
| 4       | 053         | 251             | 33-128  | 35     | WIND STRIP | 782               |             |      | 60% | B.O. T # 782, 900 10sec All ones. |
| 5       | 054         | 251             | 33-128  | 35     |            |                   |             |      | 30% |                                   |
| 6       | 055         | 251 1/2         | 33-128  | 35     |            |                   |             |      | 50% |                                   |
| 7       | 056         | 252             | 33-128  | 35     |            |                   |             |      | 50% |                                   |
| 8       | 057         | 252 1/2         | 33-128  | 35     |            |                   |             |      | 50% |                                   |
| 9       | 058         | 253             | 33-128  | 35     |            |                   |             |      | 50% |                                   |
| 10      | 059         | 253 1/2         | 33-128  | 35     |            |                   |             |      | 50% |                                   |
| 11      | 060         | 254             | 33-128  | 35     |            |                   |             |      | 50% |                                   |
| 12      | 061         | 254 1/2         | 33-128  | 35     |            |                   |             |      | 50% |                                   |
| 13      | 062         | 255             | 33-128  | 35     |            |                   |             |      | 50% |                                   |
| 14      | 063         | 255 1/2         | 33-128  | 35     |            |                   |             |      | 50% |                                   |
| 15      |             |                 |         |        |            |                   |             |      |     |                                   |
| 16      |             |                 |         |        |            |                   |             |      |     |                                   |
| 17      |             |                 |         |        |            |                   |             |      |     |                                   |
| 18      |             |                 |         |        |            |                   |             |      |     |                                   |
| 19      |             |                 |         |        |            |                   |             |      |     |                                   |
| 20      |             |                 |         |        |            |                   |             |      |     |                                   |
| 21      |             |                 |         |        |            |                   |             |      |     |                                   |
| 22      |             |                 |         |        |            |                   |             |      |     |                                   |
| 23      |             |                 |         |        |            |                   |             |      |     |                                   |
| 24      |             |                 |         |        |            |                   |             |      |     |                                   |
| 25      |             |                 |         |        |            |                   |             |      |     |                                   |

|                     |                          |                    |                          |               |                  |
|---------------------|--------------------------|--------------------|--------------------------|---------------|------------------|
| TOTAL SETUPS        | TOTAL SWEEPS             | TOTAL COVERAGE     | TOTAL FIELD TIME         | DRIVING TIME  | SYSTEM NO.       |
| SWEEP FREQUENCY     | SWEEP PATTERN            | SWEEPS PER PATTERN | SWEEP PATTERNS PER SETUP | PATCH PATTERN |                  |
| GEOPHONES PER PATCH | NO. OF RECORDING PATCHES | TYPE VIBRATOR      | TYPE GEOPHONE            | FREQUENCY     | STATION INTERVAL |
| REMARKS             |                          |                    | OBSERVER                 |               | PARTY MGR.       |

OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER

Exploration Services  
Division  
Geosource Inc.

5

|                         |                                    |                                 |                              |                        |
|-------------------------|------------------------------------|---------------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>Southern California</b> | STATE<br><b>California</b>      | COUNTY<br><b>Los Angeles</b> | DATE<br><b>4-14-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt Shoulder</b>    | WEATHER<br><b>Clear + Windy</b> |                              | LINE NO.<br><b>6</b>   |

| REC. NO. | SWEEP POINT    | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN     | TAPE RL. NO. | FILTER |      |     | REMARKS   |
|----------|----------------|-----------------|---------|--------|--------------|--------------|--------|------|-----|---|
|          |                |                 |         |        |              |              | LOCUT  | 80 ~ | AMP |   |
| 1        | Pulse          | 1-6sec          |         |        | Missed Sweep | 782          | OLT    | IN   |     | Recorder set at 70-71                                     |
| 2        | FIN +          | 2-11 "          |         |        |              |              |        |      |     | STA# 54-78 OPEN DUE TO CROSS COUNTRY.                     |
| 3        | D.R.D          | 4-11 "          |         |        |              |              |        |      |     |   |
| 4        | SUM test       | 2-11 "          |         |        |              |              |        |      |     |   |
| 5        | N.R.S test     | 2-11 "          |         |        |              |              |        |      |     | Vib # 23651 DOWN, OIL LEAK                                |
| 6        | 932 SIMILARITY | 1-16sec         | 217     | 5      |              |              |        |      |     | 30% WINDS ARE 16-25 M.P.H WITH GUST TO 25 M.P.H           |
| 7        | 064 WIND STRIP | 33-128          | 35      |        |              |              |        |      |     | 66Db STATION INTERVAL 165', TIME 15 9:20                  |
| 8        | 065 256        | 33-128          | 35      | 4      |              |              |        |      |     | 50% 4 Vib 16sec Sweep 20 LISTENING 36sec TOTAL            |
| 9        | 066 256 1/2    | 33-128          | 35      |        | 1            |              |        |      |     | 50% (8 sweep) 50' APART 20% MOVE UP 1st Vib 3' IN         |
| 10       | 067 257        | 33-128          | 35      |        |              |              |        |      |     | 50% Front OF Flag.  |
| 11       | 068 257 1/2    | 33-128          | 35      |        |              | 782          |        |      |     | 50% E.O.T #782, TAPE MKTS                                 |
| 12       | 069 258        | 33-128          | 35      |        |              | 783          |        |      |     | 60Db B.O.T #783, 900 10sec ALL ONES.                      |
| 13       | 070 258        | 33-128          | 35      |        |              |              |        |      |     | 50%   |
| 14       | 071 258 1/2    | 33-128          | 35      |        |              |              |        |      |     | 50%   |
| 15       | 072 259        | 33-128          | 35      |        |              |              |        |      |     | 50%   |
| 16       | 073 259 1/2    | 33-128          | 35      | 5      |              |              |        |      |     | 50% 5 Vib 16sec Sweep 20 LISTENING 36 sec TOTAL (8 sweep) |
| 17       | 074 260        | 33-128          | 35      |        |              |              |        |      |     | 50% 50' APART 20% MOVE UP 1st Vib 28' IN FRONT OF FLAG    |
| 18       | 075 260 1/2    | 33-128          | 35      |        |              |              |        |      |     | 50%   |
| 19       | 076 261        | 33-128          | 35      |        |              |              |        |      |     | 50% WINDS ARE 17-24 WITH GUST TO 24 M.P.H.                |
| 20       | 077 261 1/2    | 33-128          | 35      |        |              |              |        |      |     | 50%   |
| 21       | 078 262        | 33-128          | 35      |        | 1            |              |        |      |     | 50%   |
| 22       | 079 262 1/2    | 33-128          | 35      |        |              |              |        |      |     | 50%   |
| 23       | 080 263        | 33-128          | 35      |        |              |              |        |      |     | 30%   |
| 24       | 081 263 1/2    | 33-128          | 35      |        |              |              |        |      |     | 30%   |
| 25       | 082 264        | 33-128          | 35      |        |              |              |        |      |     | 30%   |

|   |                                |                                       |                                   |                         |                          |
|---|--------------------------------|---------------------------------------|-----------------------------------|-------------------------|--------------------------|
| TOTAL SETUPS                                      | TOTAL SWEEPS                   | TOTAL COVERAGE                        | TOTAL FIELD TIME                  | DRIVING TIME            | SYSTEM NO.               |
| SWEEP FREQUENCY<br>8 → 32Hz / 16 sec              |                                | SWEEP PATTERN<br>See Remarks          |                                   | SWEEPS PER PATTERN<br>8 |                          |
| SWEEP PATTERNS PER SETUP<br>1                     |                                | PATCH PATTERN<br>     X               |                                   |                         |                          |
| GEOPHONES PER PATCH<br>24                         | NO. OF RECORDING PATCHES<br>96 | TYPE VIBRATOR<br>4-Y 1100S<br>1-Y 900 | TYPE GEOPHONE<br>ETLEU22B         | FREQUENCY<br>7.5Hz      | STATION INTERVAL<br>165' |
| REMARKS<br>8ms Sample Rate / 36 sec Record Length |                                |                                       | OBSERVER<br>K. Patton - M. Richey | PARTY MGR.<br>L. Davis  |                          |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division  
Geosource Inc.**

6

|                         |                                 |                                 |                              |                        |
|-------------------------|---------------------------------|---------------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>SO. CALIF</b>        | STATE<br><b>CALIF</b>           | COUNTY<br><b>LOS ANGELES</b> | DATE<br><b>7-14-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt shoulder</b> | WEATHER<br><b>clear + WINDY</b> | LINE NO.<br><b>6</b>         |                        |

| REC. NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN | TAPE RL. NO. | F I L T E R |      |     | RE MARKS |  |
|----------|-------------|-----------------|---------|--------|----------|--------------|-------------|------|-----|----------|--|
|          |             |                 |         |        |          |              | LOCUT       | 60 ~ | AMP |          |  |
| 1        | 083         | 264 1/2         | 33-128  | 35     | 5        | Hand Sweep   | 783         | OUT  | IN  | 30%      |  |
| 2        | 084         | 265             | 33-128  | 35     |          |              |             |      |     | 30%      |  |
| 3        | 085         | 265 1/2         | 33-128  | 35     |          |              |             |      |     | 50%      |  |
| 4        | 086         | 266             | 33-128  | 35     |          |              |             |      |     | 50%      |  |
| 5        | 087         | 266 1/2         | 33-128  | 35     |          |              | 783         |      |     | 50%      | E.O. + #783 TAPE MKTS                      |
| 6        | 088         | 267             | 33-128  | 35     |          | wind strip   | 784         |      |     | 60%      | B.O. + #784, 900 10sec All ones.           |
| 7        | 089         | 267             | 33-128  | 35     |          |              |             |      |     | 50%      |  |
| 8        | 090         | 267 1/2         | 33-128  | 35     |          |              |             |      |     | 50%      |  |
| 9        | 091         | 268             | 33-128  | 35     |          |              |             |      |     | 50%      |  |
| 10       | 092         | 268 1/2         | 33-128  | 35     |          |              |             |      |     | 50%      |  |
| 11       | 093         | 269             | 33-128  | 35     |          |              |             |      |     | 50%      |  |
| 12       | 094         | 269 1/2         | 33-128  | 35     |          |              |             |      |     | 50%      |  |
| 13       | 095         | 270             | 33-128  | 35     | 4        |              |             |      |     | 30%      | Vib #14256 Down, BROKING glide comm. Belt. |
| 14       | 096         | 270 1/2         | 33-128  | 35     |          |              |             |      |     | 30%      |  |
| 15       | 097         | 271             | 33-128  | 35     |          |              |             |      |     | 30%      |  |
| 16       | 098         | 271 1/2         | 33-128  | 35     |          |              |             |      |     | 30%      |  |
| 17       | 099         | 272             | 33-128  | 35     |          |              |             |      |     | 30%      |  |
| 18       | 100         | 272 1/2         | 33-128  | 35     |          |              |             |      |     | 30%      |  |
| 19       | 101         | 273             | 33-128  | 35     |          |              |             |      |     | 30%      |  |
| 20       | 102         | 273 1/2         | 33-128  | 35     |          |              |             |      |     | 30%      |  |
| 21       | 103         | 274             | 33-128  | 35     |          |              |             |      |     | 30%      |  |
| 22       | 104         | 274 1/2         | 33-128  | 35     |          |              |             |      |     | 30%      |  |
| 23       | 105         | 275             | 33-128  | 35     |          |              |             |      |     | 30%      |  |
| 24       | 106         | 275 1/2         | 33-128  | 35     |          |              | 784         |      |     | 30%      | E.O. + #784 TAPE MKTS                      |
| 25       | 107         | 276             | 33-128  | 35     |          | wind strip   | 785         |      |     | 60%      | B.O. + #785, 900 10sec All ones.           |

|                     |                          |                    |                          |               |                  |
|---------------------|--------------------------|--------------------|--------------------------|---------------|------------------|
| TOTAL SETUPS        | TOTAL SWEEPS             | TOTAL COVERAGE     | TOTAL FIELD TIME         | DRIVING TIME  | SYSTEM NO.       |
| SWEEP FREQUENCY     | SWEEP PATTERN            | SWEEPS PER PATTERN | SWEEP PATTERNS PER SETUP | PATCH PATTERN |                  |
| GEOPHONES PER PATCH | NO. OF RECORDING PATCHES | TYPE VIBRATOR      | TYPE GEOPHONE            | FREQUENCY     | STATION INTERVAL |
| REMARKS             |                          |                    | OBSERVER                 |               | PARTY MGR.       |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division  
Geosource Inc.**

|                         |                                 |                                 |                              |                        |
|-------------------------|---------------------------------|---------------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>SO. CALIF</b>        | STATE<br><b>CALIF</b>           | COUNTY<br><b>LOS ANGELES</b> | DATE<br><b>4-14-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt Shoulder</b> | WEATHER<br><b>Clear - WINDY</b> |                              | LINE NO.<br><b>6</b>   |

| REC. NO. | SWEEP POINT  | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN             | TAPE RL. NO. | F I L T E R |      |      | REMARKS                           |
|----------|--------------|-----------------|---------|--------|----------------------|--------------|-------------|------|------|-----------------------------------|
|          |              |                 |         |        |                      |              | LOCUT       | 60 ~ | AMP  |                                   |
| 1        | SKIP 276     | 33-128          | 35      | 4      | <i>Pressed sweep</i> | 785          | OUT         | IN   | SKIP | Due to WATERWELL.                 |
| 2        | SKIP 276 1/2 | 33-128          | 35      |        |                      |              |             |      | SKIP | " " "                             |
| 3        | 108 277      | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 4        | 109 277 1/2  | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 5        | 110 278      | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 6        | 111 278 1/2  | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 7        | 112 279      | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 8        | 113 279 1/2  | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 9        | 114 280      | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 10       | 115 280 1/2  | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 11       | 116 281      | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 12       | 117 281 1/2  | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 13       | 118 282      | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 14       | 119 282 1/2  | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 15       | 120 283      | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 16       | 121 283 1/2  | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 17       | 122 284      | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 18       | 123 284 1/2  | 33-128          | 35      |        | 1                    |              |             |      | 30%  |                                   |
| 19       | 124 285      | 33-128          | 35      |        |                      | 785          |             |      | 30%  | E.O. + #785 TAPE MKTS             |
| 20       | 125 285 1/2  | 33-128          | 35      |        | <i>WIND strip</i>    | 786          |             |      | 60%  | B.O. + #786, 900 10sec ALL OVERS. |
| 21       | 126 285 1/2  | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 22       | 127 286      | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 23       | 128 286 1/2  | 33-128          | 35      |        | 1                    |              |             |      | 30%  |                                   |
| 24       | 129 287      | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |
| 25       | 130 287 1/2  | 33-128          | 35      |        |                      |              |             |      | 30%  |                                   |

|                     |  |                          |               |                |  |                    |  |              |                          |                  |               |                   |
|---------------------|--|--------------------------|---------------|----------------|--|--------------------|--|--------------|--------------------------|------------------|---------------|-------------------|
| TOTAL SETUPS        |  | TOTAL SWEEPS             |               | TOTAL COVERAGE |  | TOTAL FIELD TIME   |  | DRIVING TIME |                          | SYSTEM NO.       |               |                   |
| SWEEP FREQUENCY     |  |                          | SWEEP PATTERN |                |  | SWEEPS PER PATTERN |  |              | SWEEP PATTERNS PER SETUP |                  | PATCH PATTERN |                   |
| GEOPHONES PER PATCH |  | NO. OF RECORDING PATCHES |               | TYPE VIBRATOR  |  | TYPE GEOPHONE      |  | FREQUENCY    |                          | STATION INTERVAL |               | LINE DIR. 1 TO 24 |
| REMARKS             |  |                          |               |                |  | OBSERVER           |  |              | PARTY MGR.               |                  |               |                   |

# OBSERVER'S REPORT DIGITAL VIBROSEIS RECORDER

Exploration Services  
Division  
Geosource Inc. 8

|                         |                                 |                                 |                              |                        |
|-------------------------|---------------------------------|---------------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>SO. CALIF</b>        | STATE<br><b>CALIF</b>           | COUNTY<br><b>LOS Angeles</b> | DATE<br><b>4-14-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt shoulder</b> | WEATHER<br><b>Clear + WINDY</b> |                              | LINE NO.<br><b>#6</b>  |

| REC. NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN     | TAPE RL. NO. | F I L T E R |      |     | RE MARKS |
|----------|-------------|-----------------|---------|--------|--------------|--------------|-------------|------|-----|----------|
|          |             |                 |         |        |              |              | LOCUT       | 80 ~ | AMP |          |
| 1        | 288         | 33-128          | 35      | 4      | MISSED SWEEP | 786          | OUT         | IN   | 30% |          |
| 2        | 288 1/2     | 33-128          | 35      |        |              |              |             |      | 30% |          |
| 3        | 289         | 33-128          | 35      |        |              |              |             |      | 30% |          |
| 4        | 289 1/2     | 33-128          | 35      |        |              |              |             |      | 50% |          |
| 5        | 290         | 33-128          | 35      |        |              |              |             |      | 50% |          |
| 6        | 290 1/2     | 33-128          | 35      |        |              |              |             |      | 50% |          |
| 7        | 291         | 33-128          | 35      |        |              |              |             |      | 50% |          |
| 8        | 291 1/2     | 33-128          | 35      |        |              |              |             |      | 50% |          |
| 9        | 292         | 33-128          | 35      |        |              |              |             |      | 50% |          |
| 10       |             |                 |         |        |              |              |             |      |     |          |
| 11       |             |                 |         |        |              |              |             |      |     |          |
| 12       |             |                 |         |        |              |              |             |      |     |          |
| 13       |             |                 |         |        |              |              |             |      |     |          |
| 14       |             |                 |         |        |              |              |             |      |     |          |
| 15       |             |                 |         |        |              |              |             |      |     |          |
| 16       |             |                 |         |        |              |              |             |      |     |          |
| 17       |             |                 |         |        |              |              |             |      |     |          |
| 18       |             |                 |         |        |              |              |             |      |     |          |
| 19       |             |                 |         |        |              |              |             |      |     |          |
| 20       |             |                 |         |        |              |              |             |      |     |          |
| 21       |             |                 |         |        |              |              |             |      |     |          |
| 22       |             |                 |         |        |              |              |             |      |     |          |
| 23       |             |                 |         |        |              |              |             |      |     |          |
| 24       |             |                 |         |        |              |              |             |      |     |          |
| 25       |             |                 |         |        |              |              |             |      |     |          |

|                     |                          |                    |                          |               |                  |
|---------------------|--------------------------|--------------------|--------------------------|---------------|------------------|
| TOTAL SETUPS        | TOTAL SWEEPS             | TOTAL COVERAGE     | TOTAL FIELD TIME         | DRIVING TIME  | SYSTEM NO.       |
| SWEEP FREQUENCY     | SWEEP PATTERN            | SWEEPS PER PATTERN | SWEEP PATTERNS PER SETUP | PATCH PATTERN |                  |
| GEOPHONES PER PATCH | NO. OF RECORDING PATCHES | TYPE VIBRATOR      | TYPE GEOPHONE            | FREQUENCY     | STATION INTERVAL |
| REMARKS             |                          |                    | OBSERVER                 | PARTY MGR.    |                  |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division**  
Geosource Inc.

9

|                         |                                    |                                 |                              |                        |
|-------------------------|------------------------------------|---------------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>Southern California</b> | STATE<br><b>California</b>      | COUNTY<br><b>Los Angeles</b> | DATE<br><b>4-15-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt Shoulder</b>    | WEATHER<br><b>Clear + Windy</b> |                              | LINE NO.<br><b>6</b>   |

| REC. NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN   | TAPE RL. NO. | F I L T E R |      |     | RE MARKS  |
|----------|-------------|-----------------|---------|--------|------------|--------------|-------------|------|-----|---|
|          |             |                 |         |        |            |              | LOCUT       | 60 ~ | AMP |   |
| 1        | 933         | Pulse           |         |        |            | 786          | OUT         | IN   |     | Recorder set at 291292                          |
| 2        | 934/935     | FINT            |         |        |            |              |             |      |     | STA # 54-78 OPEN DUE TO CROSS COUNTRY           |
| 3        | 936/939     | DRD             |         |        |            |              |             |      |     | Vib # 14256 Down, Fixing guide column.          |
| 4        | 953/954     | Sum TEST        |         |        |            |              |             |      |     |   |
| 5        | 960/961     | NRT TEST        |         |        |            |              |             |      |     |   |
| 6        | 932         | Simplicity      | 217     | 4      |            | 786          |             |      | 30% | E.O.T # 786 TAPE MKTS                           |
| 7        | 140         | wind strip      | 14      |        |            | 787          |             |      | 60% | B.O.T # 787, 900 10sec ALL ONES.                |
| 8        | 141         | 292 1/2         | 33-128  | 14     | 4          | 2            |             |      | 50% | 4 Vib 16sec SWEEP 20 LISTENING TIME 36sec TOTAL |
| 9        | 142         | 293             | 33-128  | 14     |            |              |             |      | 50% | (8 SWEEP) 50' APART 20 33 MOVE UP 1st Vib 3' IN |
| 10       | 143         | 293 1/2         | 33-128  | 14     |            |              |             |      | 50% | FRONT OF FLAG                                   |
| 11       | 144         | 294             | 33-128  | 14     |            |              |             |      | 50% | WINDS ARE 13 M.P.H TIME IS 9:50                 |
| 12       | 145         | 294 1/2         | 33-128  | 14     |            |              |             |      | 50% |   |
| 13       | 146         | 295             | 33-128  | 14     |            |              |             |      | 50% |   |
| 14       | 147         | 295 1/2         | 33-128  | 14     |            |              |             |      | 50% |   |
| 15       | 148         | 296             | 33-128  | 14     |            |              |             |      | 50% |   |
| 16       | 149         | 296 1/2         | 33-128  | 14     |            |              |             |      | 50% |   |
| 17       | 150         | 297             | 33-128  | 14     |            |              |             |      | 50% |   |
| 18       | 151         | 297 1/2         | 33-128  | 14     |            |              |             |      | 50% |   |
| 19       | 152         | 298             | 33-128  | 14     |            |              |             |      | 50% |   |
| 20       | 153         | 298 1/2         | 33-128  | 14     |            |              |             |      | 50% |   |
| 21       | 154         | 299             | 33-128  | 14     |            |              |             |      | 30% | BACK ON ROAD                                    |
| 22       | 155         | 299 1/2         | 33-128  | 14     |            |              |             |      | 30% |   |
| 23       | 156         | 300             | 33-128  | 14     |            | 787          |             |      | 30% | EOT # 787 Tape MKTS.                            |
| 24       | 157         | 300 1/2         | 33-128  | 14     | wind strip | 788          |             |      | 60% | B.O.T # 788, 900 10sec ALL ONES.                |
| 25       | 158         | 300 1/2         | 33-128  | 14     |            |              |             |      | 30% |   |

|   |                                |                                    |                                  |                         |                          |
|---|--------------------------------|------------------------------------|----------------------------------|-------------------------|--------------------------|
| TOTAL SETUPS                                      | TOTAL SWEEPS                   | TOTAL COVERAGE                     | TOTAL FIELD TIME                 | DRIVING TIME            | SYSTEM NO.               |
| SWEEP FREQUENCY<br>8 → 32Hz / 16 sec              |                                | SWEEP PATTERN<br>see Remarks       |                                  | SWEEPS PER PATTERN<br>8 |                          |
| SWEEP PATTERNS PER SETUP<br>1                     |                                | PATCH PATTERN<br>     X            |                                  |                         |                          |
| GEOPHONES PER PATCH<br>24                         | NO. OF RECORDING PATCHES<br>96 | TYPE VIBRATOR<br>4-11005<br>1-1900 | TYPE GEOPHONE<br>ETLE V 22B      | FREQUENCY<br>7.5Hz      | STATION INTERVAL<br>165' |
| REMARKS<br>8ms Sample Rate / 36 sec Record Length |                                |                                    | OBSERVER<br>R. Patten, M. Richey | PARTY MGR.<br>L. Davis  |                          |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division  
Geosource Inc.**

10

|                          |                                 |                                     |                              |                        |
|--------------------------|---------------------------------|-------------------------------------|------------------------------|------------------------|
| CLIENT<br><b>CO CORP</b> | AREA<br><b>SO. CALIF</b>        | STATE<br><b>CALIF</b>               | COUNTY<br><b>LOS ANGELES</b> | DATE<br><b>4-15-82</b> |
| CREW NO.<br><b>6834</b>  | TERRAIN<br><b>Dirt Shoulder</b> | WEATHER<br><b>Clear &amp; Windy</b> |                              | LINE NO.<br><b>6</b>   |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN | TAPE RL.NO. | FILTER |     |     | REMARKS |                                       |
|---------|-------------|-----------------|---------|--------|----------|-------------|--------|-----|-----|---------|---------------------------------------|
|         |             |                 |         |        |          |             | LOCUT  | 60~ | AMP |         |                                       |
| 1       | 159         | 301             | 33-128  | 14     | 4        | Mixed 30-40 | 788    | OUT | IN  | 30%     |                                       |
| 2       | 160         | 301 1/2         | 33-128  | 14     |          |             |        |     |     | 50%     | WENT BACK TO Shoulder.                |
| 3       | 161         | 302             | 33-128  | 14     |          |             |        |     |     | 50%     |                                       |
| 4       | SKIP        | 302 1/2         | 33-128  | 14     |          |             |        |     |     | SKIP    | Due Rock SLIDE                        |
| 5       | SKIP        | 303             | 33-128  | 14     |          |             |        |     |     | SKIP    | Due to House                          |
| 6       | SKIP        | 303 1/2         | 33-128  | 14     |          |             |        |     |     | SKIP    | " " "                                 |
| 7       | SKIP        | 304             | 33-128  | 14     |          |             |        |     |     | SKIP    | 304-310 Due to OFF SET OF the CABLES. |
| 8       | 162         | 311             | 33-128  | 14     |          |             |        |     |     | 30%     | BACK ON ROAD.                         |
| 9       | 163         | 311 1/2         | 33-128  | 14     |          |             |        |     |     | 30%     |                                       |
| 10      | 164         | 312             | 33-128  | 14     |          |             |        |     |     | 30%     |                                       |
| 11      | 165         | 312 1/2         | 33-128  | 14     |          |             |        |     |     | 30%     |                                       |
| 12      | 166         | 313             | 33-128  | 14     |          |             |        |     |     | 30%     |                                       |
| 13      | 167         | 313 1/2         | 33-128  | 14     |          |             |        |     |     | 30%     |                                       |
| 14      | 168         | 314             | 33-128  | 14     |          |             |        |     |     | 30%     |                                       |
| 15      | SKIP        | 314 1/2         | 33-128  | 14     |          |             |        |     |     | SKIP    | Due to Houses                         |
| 16      | SKIP        | 315             | 33-128  | 14     |          |             |        |     |     | SKIP    | " " "                                 |
| 17      | SKIP        | 315 1/2         | 33-128  | 14     |          |             |        |     |     | SKIP    | " " "                                 |
| 18      | SKIP        | 316             | 33-128  | 14     |          |             |        |     |     | SKIP    | " " "                                 |
| 19      | SKIP        | 316 1/2         | 33-128  | 14     |          |             |        |     |     | SKIP    | " " "                                 |
| 20      | 169         | 317             | 33-128  | 14     |          |             |        |     |     | 30%     |                                       |
| 21      | 170         | 317 1/2         | 33-128  | 14     |          |             |        |     |     | 30%     |                                       |
| 22      | 171         | 318             | 33-128  | 14     |          |             |        |     |     | 30%     |                                       |
| 23      | 172         | 318 1/2         | 33-128  | 14     |          |             |        |     |     | 30%     |                                       |
| 24      | 173         | 319             | 33-128  | 14     |          |             |        |     |     | 30%     |                                       |
| 25      | 174         | 319 1/2         | 33-128  | 14     |          |             |        |     |     | 30%     |                                       |

|                     |                          |                    |                          |               |                  |
|---------------------|--------------------------|--------------------|--------------------------|---------------|------------------|
| TOTAL SETUPS        | TOTAL SWEEPS             | TOTAL COVERAGE     | TOTAL FIELD TIME         | DRIVING TIME  | SYSTEM NO.       |
| SWEEP FREQUENCY     | SWEEP PATTERN            | SWEEPS PER PATTERN | SWEEP PATTERNS PER SETUP | PATCH PATTERN |                  |
| GEOPHONES PER PATCH | NO. OF RECORDING PATCHES | TYPE VIBRATOR      | TYPE GEOPHONE            | FREQUENCY     | STATION INTERVAL |
| REMARKS             | OBSERVER                 |                    | PARTY MGR.               |               |                  |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division**  
Geosource Inc.

|                          |                                 |                                 |                              |                        |
|--------------------------|---------------------------------|---------------------------------|------------------------------|------------------------|
| CLIENT<br><i>CO CORP</i> | AREA<br><i>SO. CALIF</i>        | STATE<br><i>CALIF</i>           | COUNTY<br><i>LOS ANGELES</i> | DATE<br><i>4-15-82</i> |
| CREW NO.<br><i>6834</i>  | TERRAIN<br><i>Dirt shoulder</i> | WEATHER<br><i>Clear + WINDY</i> |                              | LINE NO.<br><i>#6</i>  |

| REC. NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN            | TAPE RL. NO. | F I L T E R |      |     | RE MARKS                         |
|----------|-------------|-----------------|---------|--------|---------------------|--------------|-------------|------|-----|----------------------------------|
|          |             |                 |         |        |                     |              | LOCUT       | 60 ~ | AMP |                                  |
| 1        | 320         | 33-128          | 14      | 4      | <i>missed Sweep</i> | 788          | OUT         | IN   | 30% | E.O. + # 788 TAPE MKTS           |
| 2        | 320 1/2     | 33-128          | 14      |        | <i>WIND STUP</i>    | 789          |             |      | 60% | B.O. + # 789, 900 10sec ALL OWES |
| 3        | 320 1/2     | 33-128          | 14      |        |                     |              |             |      | 30% |                                  |
| 4        | 321         | 33-128          | 14      |        |                     |              |             |      | 30% |                                  |
| 5        |             |                 |         |        |                     |              |             |      |     |                                  |
| 6        |             |                 |         |        |                     |              |             |      |     |                                  |
| 7        |             |                 |         |        |                     |              |             |      |     |                                  |
| 8        |             |                 |         |        |                     |              |             |      |     |                                  |
| 9        |             |                 |         |        |                     |              |             |      |     |                                  |
| 10       |             |                 |         |        |                     |              |             |      |     |                                  |
| 11       |             |                 |         |        |                     |              |             |      |     |                                  |
| 12       |             |                 |         |        |                     |              |             |      |     |                                  |
| 13       |             |                 |         |        |                     |              |             |      |     |                                  |
| 14       |             |                 |         |        |                     |              |             |      |     |                                  |
| 15       |             |                 |         |        |                     |              |             |      |     |                                  |
| 16       |             |                 |         |        |                     |              |             |      |     |                                  |
| 17       |             |                 |         |        |                     |              |             |      |     |                                  |
| 18       |             |                 |         |        |                     |              |             |      |     |                                  |
| 19       |             |                 |         |        |                     |              |             |      |     |                                  |
| 20       |             |                 |         |        |                     |              |             |      |     |                                  |
| 21       |             |                 |         |        |                     |              |             |      |     |                                  |
| 22       |             |                 |         |        |                     |              |             |      |     |                                  |
| 23       |             |                 |         |        |                     |              |             |      |     |                                  |
| 24       |             |                 |         |        |                     |              |             |      |     |                                  |
| 25       |             |                 |         |        |                     |              |             |      |     |                                  |

|                     |                          |                    |                          |               |                  |
|---------------------|--------------------------|--------------------|--------------------------|---------------|------------------|
| TOTAL SETUPS        | TOTAL SWEEPS             | TOTAL COVERAGE     | TOTAL FIELD TIME         | DRIVING TIME  | SYSTEM NO.       |
| SWEEP FREQUENCY     | SWEEP PATTERN            | SWEEPS PER PATTERN | SWEEP PATTERNS PER SETUP | PATCH PATTERN |                  |
| GEOPHONES PER PATCH | NO. OF RECORDING PATCHES | TYPE VIBRATOR      | TYPE GEOPHONE            | FREQUENCY     | STATION INTERVAL |
| REMARKS             |                          |                    | OBSERVER                 |               | PARTY MGR.       |

# OBSERVER'S REPORT DIGITAL VIBROSEIS RECORDER

Exploration Services  
Division  
Geosource Inc.

12

|                         |  |                            |                              |                        |
|-------------------------|--|----------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>Southern California</b>           | STATE<br><b>California</b> | COUNTY<br><b>Los Angeles</b> | DATE<br><b>4-16-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt Shoulder + Black TOP.</b> | WEATHER<br><b>clear</b>    | LINE NO.<br><b>6</b>         |                        |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN     | TAPE RL.NO. | F I L T E R |      |      | REMARKS   |
|---------|-------------|-----------------|---------|--------|--------------|-------------|-------------|------|------|---|
|         |             |                 |         |        |              |             | LOCUT       | 60 ~ | AMP  |   |
| 1       | 933         | Pulse           |         |        | Missed Sweep | 789         | OUT         | IN   |      | Recorder set at 291-292                         |
| 2       | 934/935     | E.P.M.T         |         |        |              |             |             |      |      | STA#54-78 OPEN DUE TO CROSS COUNTRY.            |
| 3       | 936/939     | D.R.D.          |         |        |              |             |             |      |      |   |
| 4       | 953/954     | Sum Test        |         |        |              |             |             |      |      |   |
| 5       | 960/961     | N.R.J. Test     |         |        |              |             |             |      |      |   |
| 6       | 932         | Similarity      | 217     | 4      |              |             |             |      | 30%  | Vib #14256 Down, Fixing guide column            |
| 7       | 179         | wind strip      | 17      |        |              |             |             |      | 60db |   |
| 8       | 180         | 340             | 36-131  | 17     | 4            |             |             |      | 30%  | STA# 121 1/2 - 139 1/2 SKIP DUE TO HOUSES.      |
| 9       | 181         | 340 1/2         | 37-132  | 18     |              |             |             |      | 30%  | 4 Vib 16sec SWEEP 20 LISTENING TIME 36sec TOTAL |
| 10      | 182         | 341             | 38-133  | 19     |              |             |             |      | 30%  |   |
| 11      | 183         | 341 1/2         | 39-134  | 20     |              |             |             |      | 30%  |   |
| 12      | 184         | 342             | 40-135  | 21     |              |             |             |      | 30%  |   |
| 13      | 185         | 342 1/2         | 41-136  | 22     |              |             |             |      | 30%  |   |
| 14      | 186         | 343             | 42-137  | 23     |              |             |             |      | 30%  |   |
| 15      | 187         | 343 1/2         | 43-138  | 24     |              |             |             |      | 30%  |   |
| 16      | 188         | 344             | 44-139  | 25     |              |             |             |      | 30%  |   |
| 17      | 189         | 344 1/2         | 45-140  | 26     |              |             |             |      | 30%  |   |
| 18      | 190         | 151             | 46-141  | 27     |              |             |             |      | 30%  | NOTE. SWEEP POINTS RELATE TO LINE #6 File No.   |
| 19      | 191         | 152             | 47-142  | 28     |              | 789         |             |      | 30%  | 190, E.O. + #789, TAPE MKTS.                    |
| 20      | 192         | 153             | 48-143  | 29     | wind strip   | 790         |             |      | 60db | B.O. + #790, 900 10sec ALL GAMES                |
| 21      | 193         | 153             | 48-143  | 29     |              |             |             |      | 30%  |   |
| 22      | 194         | 154             | 49-144  | 30     |              |             |             |      | 30%  |   |
| 23      | 195         | 155             | 50-145  | 31     |              |             |             |      | 30%  |   |
| 24      | 196         | 156             | 51-146  | 32     |              |             |             |      | 30%  |   |
| 25      | 197         | 157             | 52-147  | 33     |              |             |             |      | 30%  |   |

|  |                                |                                       |                                  |                         |                          |
|--|--------------------------------|---------------------------------------|----------------------------------|-------------------------|--------------------------|
| TOTAL SETUPS                                     | TOTAL SWEEPS                   | TOTAL COVERAGE                        | TOTAL FIELD TIME                 | DRIVING TIME            | SYSTEM NO.               |
| SWEEP FREQUENCY<br>8 → 32 Hz / 16 sec            |                                | SWEEP PATTERN<br>See Remarks          |                                  | SWEEPS PER PATTERN<br>8 |                          |
| SWEPT PATTERNS PER SETUP<br>1                    |                                | PATCH PATTERN<br>     x               |                                  |                         |                          |
| GEOPHONES PER PATCH<br>24                        | NO. OF RECORDING PATCHES<br>96 | TYPE VIBRATOR<br>4-Y 1100s<br>1-Y 900 | TYPE GEOPHONE<br>ETLEU22B        | FREQUENCY<br>7.5 Hz     | STATION INTERVAL<br>165' |
| REMARKS<br>8ms Sample Rate / 36sec Record Length |                                |                                       | OBSERVER<br>K. Patton, M. Pichey | PARTY MGR.<br>L. Davis. |                          |

# OBSERVER'S REPORT DIGITAL VIBROSEIS RECORDER

Exploration Services  
Division  
Geosource Inc.

13

|                         |  |                         |                              |                        |
|-------------------------|--|-------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>SO. CALIF</b>                   | STATE<br><b>CALIF</b>   | COUNTY<br><b>LOS ANGELES</b> | DATE<br><b>4-16-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt shoulder &amp; Road</b> | WEATHER<br><b>Clear</b> |                              | LINE NO.<br><b>#6</b>  |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN                | TAPE RL.NO. | F I L T E R |     |      | RE MARKS  |
|---------|-------------|-----------------|---------|--------|-------------------------|-------------|-------------|-----|------|---|
|         |             |                 |         |        |                         |             | LOCUT       | 60~ | AMP  |   |
| 1       | 158         | 53-148          | 34      | 4      | <sup>missed</sup> sweep | 790         | DUT         | IN  | 30%  |   |
| 2       | 159         | 79-149          | 60      |        |                         |             |             |     | 30%  | NOTE: Cleared all the way to 78, starting to add cable to the front. Be pulling line till we get 96 station again |
| 3       | 160         | 79-150          | 60      |        |                         |             |             |     | 30%  |   |
| 4       | 161         | 79-151          | 60      |        |                         |             |             |     | 30%  |   |
| 5       | 162         | 79-152          | 60      |        | 2                       |             |             |     | 30%  |   |
| 6       | 163         | 79-153          | 60      |        |                         |             |             |     | 30%  |   |
| 7       | 164         | 79-154          | 60      |        | 1                       |             |             |     | 30%  |   |
| 8       | 165         | 79-155          | 60      |        | 2                       |             |             |     | 30%  |   |
| 9       | 166         | 79-156          | 60      |        | 2                       |             |             |     | 30%  |   |
| 10      | 167         | 79-157          | 60      |        | 1                       |             |             |     | 30%  |   |
| 11      | 168         | 79-158          | 60      |        |                         |             |             |     | 30%  |   |
| 12      | 169         | 79-159          | 60      |        |                         |             |             |     | 30%  | Recorder Set up between 108-109   |
| 13      | 170         | 79-160          | 60      |        | 1                       | 790         |             |     | 30%  | E.O. + #790, TAPE MKTS  |
| 14      | 171-SKIP    | 79-161          | 43      |        | wind strip              | 791         |             |     | SKIP | Due to WATER WELLS, STA* 171-173: B.O. + #791   |
| 15      | 174         | 79-164          | 43      |        |                         |             |             |     | 30%  | 10sec 900 all ones.   |
| 16      | 175         | 79-165          | 43      |        | 1                       |             |             |     |      |   |
| 17      |             |                 |         |        |                         |             |             |     |      | #23652 down - broken hydraulic cyl. Pin   |
| 18      |             |                 |         |        |                         |             |             |     |      | two vibs down had to stop vibrating   |
| 19      |             |                 |         |        |                         |             |             |     |      | Picked up cables no working in Canyon on weekend  |
| 20      |             |                 |         |        |                         |             |             |     |      |   |
| 21      |             |                 |         |        |                         |             |             |     |      |   |
| 22      |             |                 |         |        |                         |             |             |     |      |   |
| 23      |             |                 |         |        |                         |             |             |     |      |   |
| 24      |             |                 |         |        |                         |             |             |     |      |   |
| 25      |             |                 |         |        |                         |             |             |     |      |   |

|                     |  |                          |               |                |  |                    |  |              |                          |                  |               |  |
|---------------------|--|--------------------------|---------------|----------------|--|--------------------|--|--------------|--------------------------|------------------|---------------|--|
| TOTAL SETUPS        |  | TOTAL SWEEPS             |               | TOTAL COVERAGE |  | TOTAL FIELD TIME   |  | DRIVING TIME |                          | SYSTEM NO.       |               |  |
| SWEEP FREQUENCY     |  |                          | SWEEP PATTERN |                |  | SWEEPS PER PATTERN |  |              | SWEEP PATTERNS PER SETUP |                  | PATCH PATTERN |  |
| GEOPHONES PER PATCH |  | NO. OF RECORDING PATCHES |               | TYPE VIBRATOR  |  | TYPE GEOPHONE      |  | FREQUENCY    |                          | STATION INTERVAL |               |  |
| REMARKS             |  | OBSERVER                 |               |                |  | PARTY MGR.         |  |              |                          |                  |               |  |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division  
Geosource Inc.**

14

|                         |   |                            |                              |                        |
|-------------------------|---|----------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>Southern California</b>      | STATE<br><b>CALIFORNIA</b> | COUNTY<br><b>Los Angeles</b> | DATE<br><b>4-20-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt Road + Black TOP</b> | WEATHER<br><b>Clear</b>    |                              | LINE NO.<br><b>6</b>   |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN     | TAPE RL.NO. | F I L T E R |     |      | RE MARKS  |
|---------|-------------|-----------------|---------|--------|--------------|-------------|-------------|-----|------|---|
|         |             |                 |         |        |              |             | LOCUT       | 60~ | AMP  |   |
| 1       | 933         | Pulse           |         |        | MISSED Sweep | 791         | OUT         | IN  |      | Recorder SET AT 150-151                               |
| 2       | 934/935     | EPNT            |         |        |              |             |             |     |      | STA #181 OPEN Due to Fire STATION.                    |
| 3       | 936/939     | D.R.D.          |         |        |              |             |             |     |      |   |
| 4       | 953/954     | Sum TEST        |         |        |              |             |             |     |      |   |
| 5       | 960/961     | N RJ TEST       |         |        |              |             |             |     |      | NOTE: Cleared all the way to 78, starting to add      |
| 6       | 932         | similarity      | 217     | 5      |              |             |             |     | 30%  | Cable to the front. Vibs well be pulling line till    |
| 7       | 214         | wind strip      | 1       |        |              |             |             |     | 66%  | WE GET 96 STATION AGAIN.                              |
| 8       | 215         | 176             | 1       | 5      |              |             |             |     | 30%  | 5 Vibs 16sec SWEEP 20 LISTENING time, 36 sec TOTAL    |
| 9       | 216         | 177             | 1       |        |              |             |             |     | 30%  | (8 sweep) 50' APART 20% MOVE UP, 1st Vib 28' IN FRONT |
| 10      | SKIP        | 178             | 1       |        |              |             |             |     | SKIP | OF FLAG. WINDS ARE GUSTING TO 15-17-M.P.H.            |
| 11      | SKIP        | 179             | 1       |        |              |             |             |     | SKIP | time is 9:30  |
| 12      | SKIP        | 180             | 1       |        |              |             |             |     | SKIP | Due to TRAILERS, Houses                               |
| 13      | SKIP        | 181             | 1       |        |              |             |             |     | SKIP | " " "   |
| 14      | SKIP        | 182             | 1       |        |              |             |             |     | SKIP | " " "   |
| 15      | SKIP        | 183             | 1       |        |              |             |             |     | SKIP | " " "   |
| 16      | 217         | 184             | 1       |        |              |             |             |     | 30%  |   |
| 17      | 218         | 185             | 2       |        |              |             |             |     | 30%  |   |
| 18      | 219         | 186             | 3       |        |              |             |             |     | 30%  |   |
| 19      | 220         | 187             | 4       |        |              |             |             |     | 30%  |   |
| 20      | 221         | 188             | 5       |        |              |             |             |     | 30%  |   |
| 21      | 222         | 189             | 6       |        |              |             |             |     | 30%  |   |
| 22      | 223         | 190             | 7       |        | 1            |             |             |     | 30%  |   |
| 23      | 224         | 191             | 8       |        | 1            |             |             |     | 30%  |   |
| 24      | 225         | 192             | 9       |        |              |             |             |     | 30%  |   |
| 25      | 226         | 193             | 10      |        |              |             |             |     | 30%  |   |

|   |                                |                                       |                                   |                         |                          |
|---|--------------------------------|---------------------------------------|-----------------------------------|-------------------------|--------------------------|
| TOTAL SETUPS                                      | TOTAL SWEEPS                   | TOTAL COVERAGE                        | TOTAL FIELD TIME                  | DRIVING TIME            | SYSTEM NO.               |
| SWEEP FREQUENCY<br>8 → 32 Hz / 16 sec             |                                | SWEEP PATTERN<br>See Remarks          |                                   | SWEEPS PER PATTERN<br>8 |                          |
| SWEEP PATTERNS PER SETUP<br>1                     |                                | PATCH PATTERN<br>     X               |                                   |                         |                          |
| GEOPHONES PER PATCH<br>24                         | NO. OF RECORDING PATCHES<br>96 | TYPE VIBRATOR<br>4-Y 1100s<br>1-Y 900 | TYPE GEOPHONE<br>ETLEU 22B        | FREQUENCY<br>7.5 Hz     | STATION INTERVAL<br>165' |
| REMARKS<br>8ms sample rate / 36 sec record length |                                |                                       | OBSERVER<br>R. Patten / M. Richey | PARTY MGR<br>P. Davis   |                          |

OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER

Exploration Services  
Division  
Geosource Inc. 15

|                         |  |                                 |                              |                        |
|-------------------------|--|---------------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>SO. CALIF</b>               | STATE<br><b>CALIF</b>           | COUNTY<br><b>Los Angeles</b> | DATE<br><b>4-20-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt shoulder A Road</b> | WEATHER<br><b>Clear + WINDY</b> |                              | LINE NO.<br><b>76</b>  |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN | TAPE RL.NO.      | FILTER |     |      | REMARKS   |
|---------|-------------|-----------------|---------|--------|----------|------------------|--------|-----|------|---|
|         |             |                 |         |        |          |                  | LOCUT  | 60~ | AMP  |   |
| 1       | 227         | 194             | 89-184  | 11     | 5        | missed sweep 791 | OUT    | IN  | 30%  | E.O.T #791, TAPE MKTS.                          |
| 2       | 228         | 195             | 90-185  | 12     | WIND     | strip 792        |        |     | 60%  | B.O.T #792, 900 loops All ones.                 |
| 3       | 229         | 195             | 90-185  | 12     |          |                  |        |     | 30%  |   |
| 4       | 230         | 196             | 91-186  | 13     |          |                  |        |     | 30%  |   |
| 5       | SKIP        | 197             | 92-187  | 14     |          |                  |        |     | SKIP | Due to Houses.                                  |
| 6       | SKIP        | 198             | 93-188  | 15     |          |                  |        |     | SKIP | " " "   |
| 7       | SKIP        | 199             | 94-189  | 16     |          |                  |        |     | SKIP | " " "   |
| 8       | 231         | 200             | 95-190  | 17     | 2        |                  |        |     | 30%  |   |
| 9       | SKIP        | 201             | 96-191  | 18     |          |                  |        |     | SKIP | Due to Houses.                                  |
| 10      | SKIP        | 202             | 97-192  | 19     |          |                  |        |     | SKIP | " " "   |
| 11      | SKIP        | 203             | 98-193  | 20     |          |                  |        |     | SKIP | " " "   |
| 12      | SKIP        | 204             | 99-194  | 21     |          |                  |        |     | SKIP | " " "   |
| 13      | 232         | 205             | 100-195 | 22     |          |                  |        |     | 30%  |   |
| 14      | 233         | 206             | 101-196 | 23     |          |                  |        |     | 30%  | WIND ARE 18-20 M.P.H., and GUSTING TO 23 M.P.H. |
| 15      | 234         | 207             | 102-197 | 24     |          |                  |        |     | 30%  | TIME IS 12:10                                   |
| 16      | 235         | 208             | 103-198 | 25     |          |                  |        |     | 30%  |   |
| 17      | SKIP        | 209             | 104-199 | 26     |          |                  |        |     | SKIP | Due to Houses.                                  |
| 18      | SKIP        | 210             | 105-200 | 27     |          |                  |        |     | SKIP | " " "   |
| 19      | SKIP        | 211             | 106-201 | 28     |          |                  |        |     | SKIP | " " "   |
| 20      | SKIP        | 212             | 107-202 | 29     |          |                  |        |     | SKIP | " " "   |
| 21      | SKIP        | 213             | 108-203 | 30     |          |                  |        |     | SKIP | " " "   |
| 22      | SKIP        | 214             | 109-204 | 31     |          |                  |        |     | SKIP | " " "   |
| 23      | SKIP        | 215             | 110-205 | 32     |          |                  |        |     | SKIP | 215-246 SKIP Due to Houses.                     |
| 24      | 236         | 247             | 142-237 | 8      | 1        |                  |        |     | 30%  | Recorder moved UP Between 206-207               |
| 25      | 237         | 248             | 143-238 | 9      |          |                  |        |     | 30%  |   |

|                     |   |                    |                          |               |                  |
|---------------------|---|--------------------|--------------------------|---------------|------------------|
| TOTAL SETUPS        | TOTAL SWEEPS                            | TOTAL COVERAGE     | TOTAL FIELD TIME         | DRIVING TIME  | SYSTEM NO.       |
| SWEEP FREQUENCY     | SWEEP PATTERN                           | SWEEPS PER PATTERN | SWEEP PATTERNS PER SETUP | PATCH PATTERN |                  |
| GEOPHONES PER PATCH | NO. OF RECORDING PATCHES                | TYPE VIBRATOR      | TYPE GEOPHONE            | FREQUENCY     | STATION INTERVAL |
| REMARKS             | OBSERVER<br><b>B. Patton, M. Richey</b> |                    | PARTY MGR.               |               |                  |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division  
Geosource Inc.** 16

|                         |                          |                         |                              |                        |
|-------------------------|--------------------------|-------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>SO. CALIF</b> | STATE<br><b>CALIF</b>   | COUNTY<br><b>Los Angeles</b> | DATE<br><b>4-20-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Road</b>   | WEATHER<br><b>clear</b> |                              | LINE NO.<br><b>*6</b>  |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN     | TAPE RL.NO. | F I L T E R |      |      | RE MARKS                         |
|---------|-------------|-----------------|---------|--------|--------------|-------------|-------------|------|------|----------------------------------|
|         |             |                 |         |        |              |             | LOCUT       | 60 ~ | AMP  |                                  |
| 1       | 238         | 144-239         | 10      | 5      | MISSED SWEEP | 792         | OUT         | IN   | 300  |                                  |
| 2       | 239         | 145-240         | 11      |        | 1            |             |             |      | 300  |                                  |
| 3       | SKIP        | 146-241         | 12      |        |              |             |             |      | SKIP | STA# 251-255 SKIP Due to HOUSES. |
| 4       | 240         | 151-246         | 17      |        |              |             |             |      | 300  |                                  |
| 5       | 241         | 152-247         | 18      |        |              |             |             |      | 300  |                                  |
| 6       | SKIP        | 153-248         | 19      |        |              |             |             |      | SKIP | STA# 258-263 SKIP Due to HOUSES. |
| 7       | 242         | 159-254         | 25      |        | 1            |             |             |      | 300  |                                  |
| 8       | 243         | 160-255         | 26      |        |              |             |             |      | 300  |                                  |
| 9       | 244         | 161-256         | 27      |        | 1            | 792         |             |      | 300  | E.O.T # 792, TAPE MKTS           |
| 10      | SKIP        | 162-257         | 28      |        |              |             |             |      | SKIP | 267-279 SKIP Due to HOUSES.      |
| 11      |             |                 |         |        |              |             |             |      |      |                                  |
| 12      |             |                 |         |        |              |             |             |      |      |                                  |
| 13      |             |                 |         |        |              |             |             |      |      |                                  |
| 14      |             |                 |         |        |              |             |             |      |      |                                  |
| 15      |             |                 |         |        |              |             |             |      |      |                                  |
| 16      |             |                 |         |        |              |             |             |      |      |                                  |
| 17      |             |                 |         |        |              |             |             |      |      |                                  |
| 18      |             |                 |         |        |              |             |             |      |      |                                  |
| 19      |             |                 |         |        |              |             |             |      |      |                                  |
| 20      |             |                 |         |        |              |             |             |      |      |                                  |
| 21      |             |                 |         |        |              |             |             |      |      |                                  |
| 22      |             |                 |         |        |              |             |             |      |      |                                  |
| 23      |             |                 |         |        |              |             |             |      |      |                                  |
| 24      |             |                 |         |        |              |             |             |      |      |                                  |
| 25      |             |                 |         |        |              |             |             |      |      |                                  |

|                     |  |                          |               |                |                    |                  |                          |              |               |                  |  |
|---------------------|--|--------------------------|---------------|----------------|--------------------|------------------|--------------------------|--------------|---------------|------------------|--|
| TOTAL SETUPS        |  | TOTAL SWEEPS             |               | TOTAL COVERAGE |                    | TOTAL FIELD TIME |                          | DRIVING TIME |               | SYSTEM NO.       |  |
| SWEEP FREQUENCY     |  |                          | SWEEP PATTERN |                | SWEEPS PER PATTERN |                  | SWEEP PATTERNS PER SETUP |              | PATCH PATTERN |                  |  |
| GEOPHONES PER PATCH |  | NO. OF RECORDING PATCHES |               | TYPE VIBRATOR  |                    | TYPE GEOPHONE    |                          | FREQUENCY    |               | STATION INTERVAL |  |
| REMARKS             |  | OBSERVER                 |               |                |                    | PARTY MGR.       |                          |              |               |                  |  |

# OBSERVER'S REPORT DIGITAL VIBROSEIS RECORDER

Exploration Services  
Division  
Geosource Inc.

h

|                         |  |                                 |                              |                        |
|-------------------------|--|---------------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>Southern California</b>     | STATE<br><b>California</b>      | COUNTY<br><b>Los-Angeles</b> | DATE<br><b>4-21-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Black Top + Shoulder</b> | WEATHER<br><b>Clear + Windy</b> |                              | LINE NO.<br><b>6</b>   |

| REC.NO. | SWEEP POINT      | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN | TAPE RL.NO. | F I L T E R |      |     | REMARKS  |
|---------|------------------|-----------------|---------|--------|----------|-------------|-------------|------|-----|--|
|         |                  |                 |         |        |          |             | LOCUT       | 80 ~ | AMP |  |
| 1       | 933 Pulse        | 1-6 sec         |         |        |          | 793         | OUT         | IN   |     | B.O. #793, 900 10sec All ones.                               |
| 2       | 934/935 EINT     | 2- " "          |         |        |          |             |             |      |     | Recorder SET AT 238-239                                      |
| 3       | 936/939 DRD      | 4- " "          |         |        |          |             |             |      |     |  |
| 4       | 953/954 Sum TEST | 2- " "          |         |        |          |             |             |      |     | 5 Vibs 16sec SWEEP 20 LISTENING TIME, 36 SEC TOTAL (8 SWEEP) |
| 5       | 960/961 NR TEST  | 2- " "          |         |        |          |             |             |      |     | 50' APART, 20 3/4 MOVE UP, 1st Vib 28 IN FRONT OF FLAG.      |
| 6       | 932 Similarity   | 1-16 sec        | 217     | 5      |          |             |             |      |     | 308  |
| 7       | 245 Wind Strip   | 1-36 sec        | 9       |        |          |             |             |      |     | 66db WINDS ARE STEADY AT 17-21 M.P.H WITH GUST               |
| 8       | 246 280          | 175-270         | 9       | 5      |          |             |             |      |     | 308 TO 24 M.P.H. TIME IS 9:30                                |
| 9       | 247 281          | 176-271         | 10      |        |          |             |             |      |     | 508  |
| 10      | 248 282          | 177-272         | 11      |        |          |             |             |      |     | 508  |
| 11      | 249 283          | 178-273         | 12      |        |          |             |             |      |     | 508  |
| 12      | 250 284          | 179-274         | 13      |        |          |             |             |      |     | 508  |
| 13      | 251 285          | 180-275         | 14      |        |          |             |             |      |     | 508  |
| 14      | 252 286          | 181-276         | 15      |        |          |             |             |      |     | 508  |
| 15      | 253 287          | 182-277         | 16      |        |          |             |             |      |     | 509  |
| 16      | 254 288          | 183-278         | 17      |        |          |             |             |      |     | 509  |
| 17      | 255 289          | 184-279         | 18      |        |          |             |             |      |     | 508  |
| 18      | 256 290          | 185-280         | 19      |        |          |             |             |      |     | 508  |
| 19      | 257 291          | 186-281         | 20      |        |          |             |             |      |     | 508  |
| 20      | 258 292          | 187-282         | 21      |        |          |             |             |      |     | 508 WINDS ARE STEADY AT 18-23 M.P.H. GUST TO                 |
| 21      | 259 293          | 188-283         | 22      |        |          |             |             |      |     | 26 M.P.H. TIME IS 11:45.                                     |
| 22      | 260 294          | 189-284         | 23      |        |          | 793         |             |      |     | 508 E.O. #793, TAPE MKTS.                                    |
| 23      | 261 295          | 190-285         | 24      |        |          | 794         | WIND STRIP  | 60db |     | B.O. #794, 900 10sec All ones.                               |
| 24      | 262 295          | 190-285         | 24      |        |          |             |             |      |     | 508  |
| 25      | 263 296          | 191-286         | 25      |        |          |             |             |      |     | 508  |

|  |                                |                                     |                                 |                         |                          |
|--|--------------------------------|-------------------------------------|---------------------------------|-------------------------|--------------------------|
| TOTAL SETUPS                                       | TOTAL SWEEPS                   | TOTAL COVERAGE                      | TOTAL FIELD TIME                | DRIVING TIME            | SYSTEM NO.               |
| SWEEP FREQUENCY<br>8 → 32Hz / 16sec                |                                | SWEEP PATTERN<br>See Remarks        |                                 | SWEEPS PER PATTERN<br>8 |                          |
| SWEEP PATTERNS PER SETUP<br>1                      |                                | PATCH PATTERN<br>      x            |                                 |                         |                          |
| GEOPHONES PER PATCH<br>24                          | NO. OF RECORDING PATCHES<br>96 | TYPE VIBRATOR<br>4-1100's<br>1-1900 | TYPE GEOPHONE<br>ETLEU22B       | FREQUENCY<br>7.5Hz      | STATION INTERVAL<br>165' |
| REMARKS<br>8ms Sample Rate / 36 sec. Record Length |                                |                                     | OBSERVER<br>R. Patton M. Richey | PARTY MGR.<br>L. Davis  |                          |

OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER

Exploration Services  
Division  
Geosource Inc.

18

|                         |  |                                 |                              |                        |
|-------------------------|--|---------------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>SO. CALIF</b>                   | STATE<br><b>CALIF</b>           | COUNTY<br><b>Los Angeles</b> | DATE<br><b>4-21-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt shoulder &amp; Road</b> | WEATHER<br><b>Clear - WINDY</b> | LINE NO.<br><b>#6</b>        |                        |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN | TAPE RL.NO.       | F I L T E R |     |      | REMARKS   |
|---------|-------------|-----------------|---------|--------|----------|-------------------|-------------|-----|------|---|
|         |             |                 |         |        |          |                   | LOCUT       | 60~ | AMP  |   |
| 1       | 264         | 297             | 192-287 | 26     | 5        | MISS ed Sweep 794 | OUT         | IN  | 50%  |   |
| 2       | 265         | 298             | 193-288 | 27     |          |                   |             |     | 50%  |   |
| 3       | 266         | 299             | 194-289 | 28     |          |                   |             |     | 50%  |   |
| 4       | 267         | 300             | 195-290 | 29     | 1        |                   |             |     | 50%  |   |
| 5       | 268         | 301             | 196-291 | 30     |          |                   |             |     | 50%  |   |
| 6       | SKIP        | 302             | 197-292 | 31     |          |                   |             |     | SKIP | DUE TO SLIDE AREA.                                |
| 7       | SKIP        | 303             | 198-293 | 32     |          |                   |             |     | SKIP | " " " "   |
| 8       | 269         | 304             | 199-294 | 33     |          |                   |             |     | 50%  |   |
| 9       | 270         | 305             | 200-295 | 34     |          |                   |             |     | 50%  |   |
| 10      | 271         | 306             | 201-296 | 35     |          |                   |             |     | 50%  |   |
| 11      | 272         | 307             | 202-297 | 36     |          |                   |             |     | 50%  |   |
| 12      | 273         | 308             | 203-298 | 37     |          |                   |             |     | 50%  |   |
| 13      | 274         | 309             | 204-299 | 38     |          |                   |             |     | 50%  |   |
| 14      | 275         | 310             | 205-300 | 39     |          |                   |             |     | 50%  |   |
| 15      | 276         | 311             | 206-301 | 40     | 1        |                   |             |     | 50%  | Winds Are steady AT 18-23 MPH + Gust up TO 26 MPH |
| 16      | SKIP        | 312             | 207-302 | 41     |          |                   |             |     | SKIP | DUE TO SLIDE AREA. Time 1:45                      |
| 17      | SKIP        | 313             | 208-303 | 42     |          |                   |             |     | SKIP | " " " "   |
| 18      | 277         | 314             | 209-304 | 43     |          |                   |             |     | 50%  |   |
| 19      | 278         | 315             | 210-305 | 44     | 1        | 794               |             |     | 50%  | EOT * 794 Tape MLTs                               |
| 20      | 279         | 316             | 211-306 | 45     | wind     | strip 795         |             |     | 66Db | Bot * 795 * 900 10sec All ones.                   |
| 21      | 280         | 316             | 211-306 | 45     | 2        |                   |             |     | 50%  |   |
| 22      | 281         | 317             | 212-307 | 46     |          |                   |             |     | 50%  |   |
| 23      | 282         | 318             | 213-308 | 47     | 2        |                   |             |     | 50%  |   |
| 24      | 283         | 319             | 214-309 | 48     |          |                   |             |     | 50%  |   |
| 25      | 284         | 320             | 215-310 | 49     |          |                   |             |     | 50%  |   |

|                     |                          |                    |                          |               |                  |
|---------------------|--------------------------|--------------------|--------------------------|---------------|------------------|
| TOTAL SETUPS        | TOTAL SWEEPS             | TOTAL COVERAGE     | TOTAL FIELD TIME         | DRIVING TIME  | SYSTEM NO.       |
| SWEEP FREQUENCY     | SWEEP PATTERN            | SWEEPS PER PATTERN | SWEEP PATTERNS PER SETUP | PATCH PATTERN |                  |
| GEOPHONES PER PATCH | NO. OF RECORDING PATCHES | TYPE VIBRATOR      | TYPE GEOPHONE            | FREQUENCY     | STATION INTERVAL |
| REMARKS             |                          |                    | OBSERVER                 |               | PARTY MGR.       |

# OBSERVER'S REPORT DIGITAL VIBROSEIS RECORDER

Exploration Services  
Division  
Geosource Inc.

19

|                         |                                 |                                    |                              |                        |
|-------------------------|---------------------------------|------------------------------------|------------------------------|------------------------|
| CLIENT<br><b>Cocorp</b> | AREA<br><b>So. Calif</b>        | STATE<br><b>Calif</b>              | COUNTY<br><b>Los-Angeles</b> | DATE<br><b>4-21-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Airt Shoulder</b> | WEATHER<br><b>Clear very windy</b> |                              | LINE NO.<br><b>6</b>   |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | MISSING SURVEY TAPE RL.NO. | FILTER |     |     | REMARKS |  |
|---------|-------------|-----------------|---------|--------|----------------------------|--------|-----|-----|---------|--|
|         |             |                 |         |        |                            | LOCUT  | 60~ | AMP |         |  |
| 1       | 285         | 321             | 216-311 | 7      | 5                          | 795    | OUT | IN  | 50%     | Recorder moved up Between 281-282                  |
| 2       | SKIP        | 322             | 217-312 | 8      |                            |        |     |     | 50%     | STA# 322-326 SKIP, Due to WATER PIPE LINE.         |
| 3       | 286         | 327             | 222-317 | 13     |                            |        |     |     | 50%     |  |
| 4       | 287         | 328             | 223-318 | 14     |                            |        |     |     | 50%     |  |
| 5       | 288         | 329             | 224-319 | 15     |                            |        |     |     | 50%     |  |
| 6       | 289         | 330             | 225-320 | 16     |                            |        |     |     | 50%     |  |
| 7       | 290         | 331             | 226-321 | 17     |                            |        |     |     | 50%     |  |
| 8       | SKIP        | 332             | 227-322 | 18     |                            |        |     |     | 50%     | STA# 332-338, SKIP, Due to HOLES, WATER PIPE LINE. |
| 9       | 291         | 339             | 234-329 | 25     |                            |        |     |     | 50%     |  |
| 10      | 292         | 340             | 235-330 | 26     |                            |        |     |     | 50%     |  |
| 11      | SKIP        | 341             | 236-331 | 27     |                            |        |     |     | 50%     | STA# 341-345 SKIP, Due to SLIDE AREA.              |
| 12      | 293         | 346             | 241-336 | 32     | 4                          | 3      |     |     | 50%     | Vib# 14256 Down, Due to BROKEN PAD BOARDS.         |
| 13      | 294         | 347             | 242-337 | 33     |                            | 795    |     |     | 50%     | E.O.T #795, TAPE MKTS                              |
| 14      |             |                 |         |        |                            |        |     |     |         | STA# 348-364 SKIP, Due to SLIDE AREA.              |
| 15      |             |                 |         |        |                            |        |     |     |         |  |
| 16      |             |                 |         |        |                            |        |     |     |         |  |
| 17      |             |                 |         |        |                            |        |     |     |         |  |
| 18      |             |                 |         |        |                            |        |     |     |         |  |
| 19      |             |                 |         |        |                            |        |     |     |         |  |
| 20      |             |                 |         |        |                            |        |     |     |         |  |
| 21      |             |                 |         |        |                            |        |     |     |         |  |
| 22      |             |                 |         |        |                            |        |     |     |         |  |
| 23      |             |                 |         |        |                            |        |     |     |         |  |
| 24      |             |                 |         |        |                            |        |     |     |         |  |
| 25      |             |                 |         |        |                            |        |     |     |         |  |

|                     |                          |                    |                          |               |                  |
|---------------------|--------------------------|--------------------|--------------------------|---------------|------------------|
| TOTAL SETUPS        | TOTAL SWEEPS             | TOTAL COVERAGE     | TOTAL FIELD TIME         | DRIVING TIME  | SYSTEM NO.       |
| SWEEP FREQUENCY     | SWEEP PATTERN            | SWEEPS PER PATTERN | SWEEP PATTERNS PER SETUP | PATCH PATTERN |                  |
| GEOPHONES PER PATCH | NO. OF RECORDING PATCHES | TYPE VIBRATOR      | TYPE GEOPHONE            | FREQUENCY     | STATION INTERVAL |
| REMARKS             |                          |                    | OBSERVER                 | PARTY MGR.    |                  |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division  
Geosource Inc.**

20

|          |        |         |                     |         |               |          |             |      |         |
|----------|--------|---------|---------------------|---------|---------------|----------|-------------|------|---------|
| CLIENT   | COCORP | AREA    | Southern California | STATE   | California    | COUNTY   | Los-Angeles | DATE | 4-22-82 |
| CREW NO. | 6834   | TERRAIN | Dirt Shoulder       | WEATHER | Clear + windy | LINE NO. | 6           |      |         |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW.  | NO VIB | AMP GAIN | TAPE RL.NO. | FILTER |     |     | REMARKS  |
|---------|-------------|-----------------|----------|--------|----------|-------------|--------|-----|-----|--|
|         |             |                 |          |        |          |             | LOCUT  | 60~ | AMP |  |
| 1       | 933         | Pulse           | 1-6 sec  |        |          | 796         | OUT    | IN  |     | Recorder set at 330-331                                |
| 2       | 934/935     | EINT            | 2- " "   |        |          |             |        |     |     | STA 351 OPEN DUE TO DRIVE WAY.                         |
| 3       | 936/939     | D.R.D.          | 4- " "   |        |          |             |        |     |     |  |
| 4       | 953/954     | Sum TEST        | 2- " "   |        |          |             |        |     |     |  |
| 5       | 960/961     | N.R.J. TEST     | 2- " "   |        |          |             |        |     |     |  |
| 6       | 932         | Similarity      | 1-16 sec | 217    | 5        |             |        |     |     | 30% 5 Vibs 16sec Sweep 20 LISTENING TIME, 36 sec total |
| 7       | 295         | Wind Strip      | 1-36 sec | 2      |          |             |        |     |     | 66 DB sweep 250' APART, 20% MOVE UP, 1st 28' IN Front  |
| 8       | 296         | 365             | 260-355  | 2      | 5        |             |        |     |     | 50% OF FLAG.   |
| 9       | 297         | 366             | 261-356  | 3      |          |             |        |     |     | 50%  |
| 10      | SKIP        | 367             | 262-357  | 4      |          |             |        |     |     | SKIP DUE TO SLIDE AREA STA# 367-373.                   |
| 11      | 298         | 374             | 269-364  | 11     |          |             |        |     |     | 50%  |
| 12      | 299         | 375             | 270-365  | 12     |          |             |        |     |     | 50%  |
| 13      | 300         | 376             | 271-366  | 13     |          |             |        |     |     | 50%  |
| 14      | 301         | 377             | 272-367  | 14     |          |             |        |     |     | 50%  |
| 15      | 302         | 378             | 273-368  | 15     |          |             |        |     |     | 50%  |
| 16      | 303         | 379             | 274-369  | 16     |          |             |        |     |     | 50%  |
| 17      | 304         | 380             | 275-370  | 17     |          |             |        |     |     | 50%  |
| 18      | 305         | 381             | 276-371  | 18     |          |             |        |     |     | 50%  |
| 19      | 306         | 382             | 277-372  | 19     |          |             |        |     |     | 50%  |
| 20      | 307         | 383             | 278-373  | 20     |          |             |        |     |     | 50%  |
| 21      | 308         | 384             | 279-374  | 21     |          |             |        |     |     | 50%  |
| 22      | 309         | 385             | 280-375  | 22     |          |             |        |     |     | 50%  |
| 23      | 310         | 386             | 281-376  | 23     |          | 796         |        |     |     | E.O. + #796, TAPE MKTS                                 |
| 24      | 311         | 387             | 282-377  | 24     |          | 797         |        |     |     | 66 DB B.O. + #797, 900 10sec ALL ONES.                 |
| 25      | 312         | 387             | 282-377  | 24     |          |             |        |     |     | 50%  |

|   |                          |                    |                          |               |                  |
|---|--------------------------|--------------------|--------------------------|---------------|------------------|
| TOTAL SETUPS                            | TOTAL SWEEPS             | TOTAL COVERAGE     | TOTAL FIELD TIME         | DRIVING TIME  | SYSTEM NO.       |
| SWEEP FREQUENCY                         | SWEEP PATTERN            | SWEEPS PER PATTERN | SWEEP PATTERNS PER SETUP | PATCH PATTERN |                  |
| 8 → 32Hz / 16 sec                       | See Remarks              | 8                  | 1                        |               |                  |
| GEOPHONES PER PATCH                     | NO. OF RECORDING PATCHES | TYPE VIBRATOR      | TYPE GEOPHONE            | FREQUENCY     | STATION INTERVAL |
| 24                                      | 96                       | 4-V11005<br>1-2900 | ETL EV22B                | 7.5Hz         | 165'             |
| REMARKS                                 | OBSERVER                 | PARTY MGR.         |                          |               |                  |
| 8 ms Sample Rate / 36 sec Record Length | R. Patten - M. Richey    | S. Davis           |                          |               |                  |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division**  
Geosource Inc.

21

|                         |  |                         |                              |                        |
|-------------------------|--|-------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>SO. CALIF</b>               | STATE<br><b>CALIF</b>   | COUNTY<br><b>LOS ANGELES</b> | DATE<br><b>4-22-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt Shoulder A Road</b> | WEATHER<br><b>Clear</b> | LINE NO.<br><b>#6</b>        |                        |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN   | TAPE RL.NO. | F I L T E R |     |      | RE MARKS  |
|---------|-------------|-----------------|---------|--------|------------|-------------|-------------|-----|------|---|
|         |             |                 |         |        |            |             | LOCUT       | 60~ | AMP  |   |
| 1       | 313         | 388             | 283-378 | 25     | 5          | 797         | OUT         | IN  | 50%  |   |
| 2       | 314         | 389             | 284-379 | 26     | 4          |             |             |     | 50%  | Vib #14256 Down, Pump troubles                      |
| 3       | SKIP        | 390             | 285-380 | 27     |            |             |             |     | SKIP | STA#390-392 SKIP Due to SLIDE.                      |
| 4       | 315         | 393             | 288-383 | 30     |            |             |             |     | 50%  |   |
| 5       | 316         | 394             | 289-384 | 31     |            |             |             |     | 50%  | 4 Vib 16Sec Swp. 20Sec. listening time 36Sec. total |
| 6       | 317         | 395             | 290-385 | 32     |            |             |             |     | 50%  | (85sweeps) Vib. 50' Apart 20 1/2' make up.          |
| 7       | 318         | 396             | 291-386 | 33     |            |             |             |     | 50%  | 1st Vib 3' in front of Flag                         |
| 8       | 319         | 397             | 292-387 | 34     |            |             |             |     | 50%  |   |
| 9       | 320         | 398             | 293-388 | 35     |            |             |             |     | 50%  |   |
| 10      | 321         | 399             | 294-389 | 36     |            |             |             |     | 50%  |   |
| 11      | 322         | 400             | 295-390 | 37     |            |             |             |     | 50%  |   |
| 12      | 323         | 401             | 296-391 | 38     |            |             |             |     | 50%  |   |
| 13      | SKIP        | 402             | 297-392 | 39     |            |             |             |     | SKIP | STA#402-405 SKIP, Due to SLIDE AREA.                |
| 14      | 324         | 406             | 301-396 | 43     |            |             |             |     | 50%  |   |
| 15      | 325         | 407             | 302-397 | 44     |            |             |             |     | 50%  |   |
| 16      | 326         | 408             | 303-398 | 45     |            |             |             |     | 50%  |   |
| 17      | 327         | 409             | 304-399 | 46     |            |             |             |     | 50%  |   |
| 18      | 328         | 410             | 305-400 | 47     |            |             |             |     | 50%  |   |
| 19      | 329         | 411             | 306-401 | 48     |            | 797         |             |     | 50%  | F.O.T #797, TAPE MK45                               |
| 20      | 330         | 412             | 307-402 | 37     | wind strip | 798         |             |     | 66%  | R.O.T #798, 90010sec ALLOWES.                       |
| 21      | 331         | 412             | 307-402 | 37     |            |             |             |     | 50%  | Recorder move UP Between 342-343                    |
| 22      | SKIP        | 413             | 308-403 | 38     |            |             |             |     | SKIP | Due to Rock SLIDE                                   |
| 23      | SKIP        | 414             | 309-404 | 39     |            |             |             |     | SKIP | " " " "   |
| 24      | SKIP        | 415             | 310-405 | 40     |            |             |             |     | SKIP | " " " "   |
| 25      | SKIP        | 416             | 311-406 | 41     |            |             |             |     | SKIP | " " " "   |

|                     |                          |                    |                          |               |                  |
|---------------------|--------------------------|--------------------|--------------------------|---------------|------------------|
| TOTAL SETUPS        | TOTAL SWEEPS             | TOTAL COVERAGE     | TOTAL FIELD TIME         | DRIVING TIME  | SYSTEM NO.       |
| SWEEP FREQUENCY     | SWEEP PATTERN            | SWEEPS PER PATTERN | SWEEP PATTERNS PER SETUP | PATCH PATTERN |                  |
| GEOPHONES PER PATCH | NO. OF RECORDING PATCHES | TYPE VIBRATOR      | TYPE GEOPHONE            | FREQUENCY     | STATION INTERVAL |
| REMARKS             | OBSERVER                 | PARTY MGR.         |                          |               |                  |

# OBSERVER'S REPORT DIGITAL VIBROSEIS RECORDER

Exploration Services  
Division  
Geosource Inc. 22

|                         |  |                         |                              |                        |
|-------------------------|--|-------------------------|------------------------------|------------------------|
| CLIENT<br><b>LOCORP</b> | AREA<br><b>SO. CALIF</b>               | STATE<br><b>CALIF</b>   | COUNTY<br><b>LOS ANGELES</b> | DATE<br><b>4-22-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt Shoulder A Road</b> | WEATHER<br><b>clear</b> |                              | LINE NO.<br><b>#6</b>  |

| REC. NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN    | TAPE RL. NO. | FILTER |     |     | REMARKS                       |
|----------|-------------|-----------------|---------|--------|-------------|--------------|--------|-----|-----|-------------------------------|
|          |             |                 |         |        |             |              | LOCUT  | 60~ | AMP |                               |
| 1        | 332 417     | 312-407         | 42      | 4      | MISSER<br>6 | 798          | OUT    | IN  | 50% |                               |
| 2        | SKIP 418    | 313-408         | 43      |        |             |              |        |     |     | Doc to VIBS NOT RECEIVE TONES |
| 3        | 333 419     | 314-409         | 44      |        |             |              |        |     |     | 50%                           |
| 4        |             |                 |         |        |             |              |        |     |     |                               |
| 5        |             |                 |         |        |             |              |        |     |     |                               |
| 6        |             |                 |         |        |             |              |        |     |     |                               |
| 7        |             |                 |         |        |             |              |        |     |     |                               |
| 8        |             |                 |         |        |             |              |        |     |     |                               |
| 9        |             |                 |         |        |             |              |        |     |     |                               |
| 10       |             |                 |         |        |             |              |        |     |     |                               |
| 11       |             |                 |         |        |             |              |        |     |     |                               |
| 12       |             |                 |         |        |             |              |        |     |     |                               |
| 13       |             |                 |         |        |             |              |        |     |     |                               |
| 14       |             |                 |         |        |             |              |        |     |     |                               |
| 15       |             |                 |         |        |             |              |        |     |     |                               |
| 16       |             |                 |         |        |             |              |        |     |     |                               |
| 17       |             |                 |         |        |             |              |        |     |     |                               |
| 18       |             |                 |         |        |             |              |        |     |     |                               |
| 19       |             |                 |         |        |             |              |        |     |     |                               |
| 20       |             |                 |         |        |             |              |        |     |     |                               |
| 21       |             |                 |         |        |             |              |        |     |     |                               |
| 22       |             |                 |         |        |             |              |        |     |     |                               |
| 23       |             |                 |         |        |             |              |        |     |     |                               |
| 24       |             |                 |         |        |             |              |        |     |     |                               |
| 25       |             |                 |         |        |             |              |        |     |     |                               |

|                     |  |                          |               |                |                    |               |                  |                          |              |                  |            |
|---------------------|--|--------------------------|---------------|----------------|--------------------|---------------|------------------|--------------------------|--------------|------------------|------------|
| TOTAL SETUPS        |  | TOTAL SWEEPS             |               | TOTAL COVERAGE |                    |               | TOTAL FIELD TIME |                          | DRIVING TIME |                  | SYSTEM NO. |
| SWEEP FREQUENCY     |  |                          | SWEEP PATTERN |                | SWEEPS PER PATTERN |               |                  | SWEEP PATTERNS PER SETUP |              | PATCH PATTERN    |            |
| GEOPHONES PER PATCH |  | NO. OF RECORDING PATCHES |               | TYPE VIBRATOR  |                    | TYPE GEOPHONE |                  | FREQUENCY                |              | STATION INTERVAL |            |
| REMARKS             |  |                          |               |                |                    |               | OBSERVER         |                          |              | PARTY MGR.       |            |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division  
Geosource Inc.**

23

|                         |                                    |                            |                              |                        |
|-------------------------|------------------------------------|----------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>Southern California</b> | STATE<br><b>California</b> | COUNTY<br><b>Los Angeles</b> | DATE<br><b>4-23-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt Shoulder</b>    | WEATHER<br><b>Clear</b>    |                              | LINE NO.<br><b>6</b>   |

| REC. NO. | SWEEP POINT      | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN      | TAPE RL. NO. | F I L T E R |     |      | REMARKS                          |
|----------|------------------|-----------------|---------|--------|---------------|--------------|-------------|-----|------|----------------------------------|
|          |                  |                 |         |        |               |              | LOCUT       | 60~ | AMP  |                                  |
| 1        | 933 Pulse        | 1 - 6 sec       |         |        | Missed Sweeps | 798          | OUT         | IN  |      | Recorder SET AT 383-384          |
| 2        | 934/935 FINT     | 2 - " "         |         |        |               |              |             |     |      |                                  |
| 3        | 936/939 DRD      | 4 - " "         |         |        |               |              |             |     |      |                                  |
| 4        | 953/954 Sum TEST | 2 - " "         |         |        |               |              |             |     |      |                                  |
| 5        | 960/961 NRT TEST | 2 - " "         |         |        |               |              |             |     |      |                                  |
| 6        | 932 Similarity   | 1 - 16 sec      | 217     | 4      |               |              |             |     | 30%  | Vibs #14256 Down, Pump troubles. |
| 7        | 334 Wind Strip   | 1 - 36 sec      | 4       |        |               |              |             |     | 66Db |                                  |
| 8        | 335 420          | 315 - 410       | 4       |        |               |              |             |     | 50%  |                                  |
| 9        | 336 421          | 316 - 411       | 5       |        |               |              |             |     | 50%  |                                  |
| 10       | 337 422          | 317 - 412       | 6       |        |               |              |             |     | 50%  |                                  |
| 11       | 338 423          | 318 - 413       | 7       |        |               |              |             |     | 50%  |                                  |
| 12       | 339 424          | 319 - 414       | 8       |        |               |              |             |     | 50%  |                                  |
| 13       | 340 425          | 320 - 415       | 9       |        |               |              |             |     | 50%  |                                  |
| 14       | 341 426          | 321 - 416       | 10      |        |               |              |             |     | 50%  |                                  |
| 15       | SKIP 427         | 322 - 417       | 11      |        |               |              |             |     | SKIP | Due to well                      |
| 16       | SKIP 428         | 323 - 418       | 12      |        |               |              |             |     | SKIP | " " "                            |
| 17       | SKIP 429         | 324 - 419       | 13      |        |               |              |             |     | SKIP | " " "                            |
| 18       | SKIP 430         | 325 - 420       | 14      |        |               |              |             |     | SKIP | " " "                            |
| 19       | SKIP 431         | 326 - 421       | 15      |        |               |              |             |     | SKIP | " " "                            |
| 20       | 342 432          | 327 - 422       | 16      |        |               |              |             |     | 50%  |                                  |
| 21       | 343 433          | 328 - 423       | 17      |        |               |              |             |     | 50%  |                                  |
| 22       | 344 434          | 329 - 424       | 18      |        |               |              |             |     | 50%  |                                  |
| 23       | 345 435          | 330 - 425       | 19      |        |               | 798          |             |     | 50%  | E.O. #798, TAPE MKTS             |
| 24       | 346 436          | 331 - 426       | 20      |        | WIND strip    | 799          |             |     | 66Db | B.O. #799, 900 10sec All ones    |
| 25       | 347 436          | 331 - 426       | 20      |        |               |              |             |     | 50%  |                                  |

|  |                                |  |                           |                         |                          |
|--|--------------------------------|--|---------------------------|-------------------------|--------------------------|
| TOTAL SETUPS                                       | TOTAL SWEEPS                   | TOTAL COVERAGE                         | TOTAL FIELD TIME          | DRIVING TIME            | SYSTEM NO.               |
| SWEEP FREQUENCY<br>8 → 32Hz / 16 sec               |                                | SWEEP PATTERN<br>See Remarks           |                           | SWEEPS PER PATTERN<br>8 |                          |
| SWEEP PATTERNS PER SETUP<br>1                      |                                | PATCH PATTERN<br>     X                |                           |                         |                          |
| GEOPHONES PER PATCH<br>24                          | NO. OF RECORDING PATCHES<br>96 | TYPE VIBRATOR<br>4-x 1100's<br>1-x 900 | TYPE GEOPHONE<br>ETLEV22B | FREQUENCY<br>7.5Hz      | STATION INTERVAL<br>165' |
| REMARKS<br>8 ms Sample Rate / 36 sec Record Length |                                |  | OBSERVER<br>K. Patton     | PARTY MGR.<br>M. Richey |                          |
|  |                                |  | L. Davis                  |                         |                          |

**OBSERVER'S REPORT  
DIGITAL VIBROSEIS RECORDER**

**Exploration Services  
Division  
Geosource Inc.**

24

|                         |                                 |                         |                              |                        |
|-------------------------|---------------------------------|-------------------------|------------------------------|------------------------|
| CLIENT<br><b>COCORP</b> | AREA<br><b>SO-CALIF</b>         | STATE<br><b>CALIF</b>   | COUNTY<br><b>LOS ANGELES</b> | DATE<br><b>4-23-82</b> |
| CREW NO.<br><b>6834</b> | TERRAIN<br><b>Dirt shoulder</b> | WEATHER<br><b>Clear</b> |                              | LINE NO.<br><b>#6</b>  |

| REC.NO. | SWEEP POINT | PATCH LOCATIONS | CDP SW. | NO VIB | AMP GAIN | TAPE RL.NO. | F I L T E R |     |     | RE MARKS                            |
|---------|-------------|-----------------|---------|--------|----------|-------------|-------------|-----|-----|-------------------------------------|
|         |             |                 |         |        |          |             | LOCUT       | 60~ | AMP |                                     |
| 1       | 437         | 332-427         | 21      | 4      | MISSING  | 799         | OUT         | IN  | 50% |                                     |
| 2       | 438         | 333-428         | 22      |        |          |             |             |     | 50% |                                     |
| 3       | 439         | 334-429         | 23      |        |          |             |             |     | 50% |                                     |
| 4       | 440         | 335-430         | 24      |        |          |             |             |     | 50% |                                     |
| 5       | 441         | 336-431         | 25      |        |          |             |             |     | 50% |                                     |
| 6       | 442         | 337-432         | 26      |        |          | 799         |             |     | 50% | TEMP E.O.L #6, E.O.T #799 TAPE MKTS |
| 7       |             |                 |         |        |          |             |             |     |     |                                     |
| 8       |             |                 |         |        |          |             |             |     |     |                                     |
| 9       |             |                 |         |        |          |             |             |     |     |                                     |
| 10      |             |                 |         |        |          |             |             |     |     |                                     |
| 11      |             |                 |         |        |          |             |             |     |     |                                     |
| 12      |             |                 |         |        |          |             |             |     |     |                                     |
| 13      |             |                 |         |        |          |             |             |     |     |                                     |
| 14      |             |                 |         |        |          |             |             |     |     |                                     |
| 15      |             |                 |         |        |          |             |             |     |     |                                     |
| 16      |             |                 |         |        |          |             |             |     |     |                                     |
| 17      |             |                 |         |        |          |             |             |     |     |                                     |
| 18      |             |                 |         |        |          |             |             |     |     |                                     |
| 19      |             |                 |         |        |          |             |             |     |     |                                     |
| 20      |             |                 |         |        |          |             |             |     |     |                                     |
| 21      |             |                 |         |        |          |             |             |     |     |                                     |
| 22      |             |                 |         |        |          |             |             |     |     |                                     |
| 23      |             |                 |         |        |          |             |             |     |     |                                     |
| 24      |             |                 |         |        |          |             |             |     |     |                                     |
| 25      |             |                 |         |        |          |             |             |     |     |                                     |

|                     |  |                          |               |                |  |                    |  |              |                          |                  |               |  |
|---------------------|--|--------------------------|---------------|----------------|--|--------------------|--|--------------|--------------------------|------------------|---------------|--|
| TOTAL SETUPS        |  | TOTAL SWEEPS             |               | TOTAL COVERAGE |  | TOTAL FIELD TIME   |  | DRIVING TIME |                          | SYSTEM NO.       |               |  |
| SWEEP FREQUENCY     |  |                          | SWEEP PATTERN |                |  | SWEEPS PER PATTERN |  |              | SWEEP PATTERNS PER SETUP |                  | PATCH PATTERN |  |
| GEOPHONES PER PATCH |  | NO. OF RECORDING PATCHES |               | TYPE VIBRATOR  |  | TYPE GEOPHONE      |  | FREQUENCY    |                          | STATION INTERVAL |               |  |
| REMARKS             |  |                          |               |                |  | OBSERVER           |  |              | PARTY MGR.               |                  |               |  |