

T H U M S L O N G B E A C H C O M P A N Y

COMPLETED WELL
MULTI-SHOT SURVEY

RUN DATE: 17-NOV-93

PAGE: 3

WELL NUMBER: C-239 M1

START DATE: 10/21/93

K.B. ELEVATION: 36.33

VENDOR: SCI-DRILL/B-H INTEQ

LAMBERT COORDINATES: N 4017645.68 E 4246266.51

SECTION BEARING: S43 OE

| MEASURED DEPTH | COURSE LENGTH | DRIFT ANGLE | V E R T I C A L | | D E P T H | | D E V I A T I O N | | T O T A L C O O R D I N A T E S | | | | TOTAL DISTANCE IN SECTION | READING DATE |
|-------------------|------------------|----------------|-----------------|---------|-----------|--------|-------------------|-------|-----------------------------------|--------|------|--------|------------------------------|-----------------|
| | | | COURSE | TOTAL | SUB-SEA | COURSE | BEARING | NORTH | SOUTH | EAST | WEST | | | |
| 1347 | 30 | 42 30 | 22.12 | 1228.03 | 1191.70 | 20.27 | S52 OE | 0.00 | 261.90 | 353.84 | 0.00 | 432.86 | 10/24/93 | |
| | | 42 30 | | | | | S52 OE | | | | | | | |
| 1377 | 30 | 42 45 | 22.03 | 1250.06 | 1213.73 | 20.36 | S51 52E | 0.00 | 274.47 | 369.86 | 0.00 | 452.98 | 10/24/93 | |
| | | 42 45 | | | | | S51 45E | | | | | | | |
| 1407 | 30 | 43 0 | 21.94 | 1272.00 | 1235.67 | 20.46 | S51 37E | 0.00 | 287.17 | 385.90 | 0.00 | 473.21 | 10/24/93 | |
| | | 43 0 | | | | | S51 30E | | | | | | | |
| 1436 | 29 | 43 0 | 21.21 | 1293.21 | 1256.88 | 19.78 | S51 30E | 0.00 | 299.48 | 401.38 | 0.00 | 492.77 | 10/24/93 | |
| | | 43 0 | | | | | S51 30E | | | | | | | |
| 1466 | 30 | 43 15 | 21.85 | 1315.06 | 1278.73 | 20.56 | S51 15E | 0.00 | 312.35 | 417.41 | 0.00 | 513.11 | 10/24/93 | |
| | | 43 30 | | | | | S51 OE | | | | | | | |
| 1496 | 30 | 43 45 | 21.67 | 1336.73 | 1300.40 | 20.75 | S50 52E | 0.00 | 325.44 | 433.50 | 0.00 | 533.66 | 10/24/93 | |
| | | 44 0 | | | | | S50 45E | | | | | | | |
| 1526 | 30 | 44 30 | 21.40 | 1358.13 | 1321.80 | 21.03 | S50 37E | 0.00 | 338.78 | 449.76 | 0.00 | 554.50 | 10/24/93 | |
| | | 44 45 | | | | | S50 30E | | | | | | | |
| 1556 | 30 | 44 45 | 21.31 | 1379.44 | 1343.11 | 21.12 | S50 15E | 0.00 | 352.28 | 466.00 | 0.00 | 575.45 | 10/24/93 | |
| | | 44 45 | | | | | S50 OE | | | | | | | |
| 1586 | 30 | 45 15 | 21.12 | 1400.56 | 1364.23 | 21.31 | S49 37E | 0.00 | 366.08 | 482.23 | 0.00 | 596.62 | 10/24/93 | |
| | | 45 45 | | | | | S49 15E | | | | | | | |
| 1615 | 29 | 46 0 | 20.15 | 1420.70 | 1384.37 | 20.86 | S49 15E | 0.00 | 379.70 | 498.03 | 0.00 | 617.35 | 10/24/93 | |
| | | 46 0 | | | | | S49 15E | | | | | | | |
| 1645 | 30 | 45 45 | 20.93 | 1441.63 | 1405.30 | 21.49 | S50 OE | 0.00 | 393.51 | 514.49 | 0.00 | 638.68 | 10/24/93 | |
| | | 45 30 | | | | | S50 45E | | | | | | | |
| 1675 | 30 | 45 15 | 21.12 | 1462.75 | 1426.42 | 21.31 | S51 30E | 0.00 | 406.78 | 531.17 | 0.00 | 659.75 | 10/24/93 | |
| | | 45 0 | | | | | S52 15E | | | | | | | |
| 1705 | 30 | 45 15 | 21.12 | 1483.88 | 1447.55 | 21.31 | S52 45E | 0.00 | 419.67 | 548.13 | 0.00 | 680.75 | 10/24/93 | |
| | | 45 15 | | | | | S53 15E | | | | | | | |
| 1735 | 30 | 45 30 | 21.03 | 1504.90 | 1468.57 | 21.40 | S53 15E | 0.00 | 432.48 | 565.27 | 0.00 | 701.81 | 10/24/93 | |
| | | 45 45 | | | | | S53 15E | | | | | | | |
| 1765 | 30 | 46 15 | 20.75 | 1525.65 | 1489.32 | 21.67 | S53 22E | 0.00 | 445.40 | 582.66 | 0.00 | 723.12 | 10/24/93 | |
| | | 46 30 | | | | | S53 30E | | | | | | | |
| 1795 | 30 | 46 45 | 20.56 | 1546.20 | 1509.87 | 21.85 | S53 37E | 0.00 | 458.36 | 600.26 | 0.00 | 744.60 | 10/24/93 | |
| | | 46 45 | | | | | S53 45E | | | | | | | |
| 1825 | 30 | 46 0 | 20.84 | 1567.04 | 1530.71 | 21.58 | S54 7E | 0.00 | 471.01 | 617.74 | 0.00 | 765.77 | 10/24/93 | |
| | | 45 15 | | | | | S54 30E | | | | | | | |
| 1831 | 6 | 45 0 | 4.24 | 1571.29 | 1534.96 | 4.24 | S54 37E | 0.00 | 473.47 | 621.20 | 0.00 | 769.93 | 10/24/93 | |
| | | 44 45 | | | | | S54 45E | | | | | | | |
| 1898 | 67 | 43 30 | 48.60 | 1619.89 | 1583.56 | 46.12 | S54 52E | 0.00 | 500.00 | 658.92 | 0.00 | 815.06 | 10/27/93 | |
| | | 42 15 | | | | | S55 OE | | | | | | | |
| 1929 | 31 | 42 0 | 23.04 | 1642.92 | 1606.59 | 20.74 | S55 22E | 0.00 | 511.79 | 675.99 | 0.00 | 835.32 | 10/27/93 | |
| | | 42 0 | | | | | S55 45E | | | | | | | |