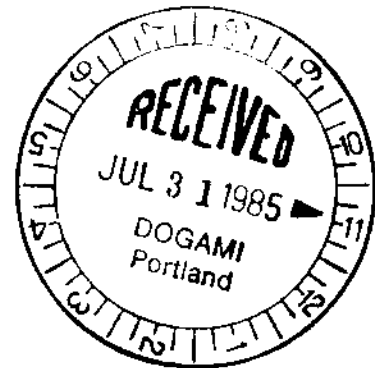


REPORT of SUB-SURFACE SURVEY

Arco Oil & Gas Co.
#34-16
Mist Field, Oregon.



JOB NO. 2025 DATE 4-17-85



2830 WEAR STREET
BAKERSFIELD, CALIFORNIA
93308
(805) 589-5264



2830 WEAR STREET
 BAKERSFIELD, CALIFORNIA 93308
 (805) 589-5264

SHEET NO. 2 of 3
 JOB NO. 2025

DATE: 4-17-85
 CALCULATED BY: HM

COMPANY: Arco Oil & Gas Co.

ADDRESS: P.O. Box 147, Bakersfield, Ca. 93302

WELL NO. #34-16 LEASE Barzef FIELD Mist Field COUNTY Columbia STATE Oregon

| MEASURED DEPTH | COURSE LENGTH | TERMINAL DRIFT ANGLE | TERMINAL DIRECTION OF DEVIATION | AVERAGE DRIFT ANGLE | VERTICAL DEPTH | | COURSE DEVIATION | AVERAGE DIRECTION OF DEVIATION | COURSE COORDINATES | | | | TOTAL COORDINATES | | | | | | |
|----------------|---------------|----------------------|---------------------------------|---------------------|----------------|---------|------------------|--------------------------------|--------------------|-------|------|---------|-------------------|-------|------|-------|--|-------|--|
| | | | | | COURSE | TOTAL | | | NORTH | SOUTH | EAST | WEST | NORTH | SOUTH | EAST | WEST | | | |
| 2186 | | 37° | N 6 E | | | 2087.79 | | | | | | 480.97 | | | | 21.03 | | | |
| 2213 | | 37° | N 7 E | | | 2109.35 | | | | | | 497.12 | | | | 22.87 | | | |
| 2245 | | 34°30' | N 7 E | | | 2135.32 | | | | | | 515.68 | | | | 25.15 | | | |
| 2275 | | 32° | N 7 E | | | 2160.41 | | | | | | 532.01 | | | | 27.15 | | | |
| 2306 | | 30° | N 5 E | | | 2186.98 | | | | | | 547.89 | | | | 28.82 | | | |
| 2337 | | 27° | N 3 E | | | 2214.22 | | | | | | 562.64 | | | | 29.85 | | | |
| 2368 | | 26°30' | N 2 E | | | 2241.90 | | | | | | 576.58 | | | | 30.46 | | | |
| 2400 | | 25° | N 5 W | | | 2270.72 | | | | | | 590.50 | | | | 30.10 | | | |
| 2495 | | 25°30' | N 10 W | | | 2356.74 | | | | | | 630.67 | | | | 24.81 | | | |
| 2619 | | 26°30' | N 8 W | | | 2468.09 | | | | | | 684.36 | | | | 16.31 | | | |
| 2744 | | 27°45' | N 6 W | | | 2579.34 | | | | | | 740.93 | | | | 9.36 | | | |
| 2817 | | 28° | N 14 W | | | 2643.87 | | | | | | 774.54 | | | | 3.43 | | | |
| 2907 | | 28°30' | N 15 W | | | 2723.18 | | | | | | 815.18 | | | | | | 7.24 | |
| 3023 | | 29° | N 9 W | | | 2824.85 | | | | | | 870.35 | | | | | | 18.84 | |
| 3147 | | 28°15' | N 10 W | | | 2933.69 | | | | | | 928.25 | | | | | | 28.65 | |
| 3272 | | 28°15' | N 10 W | | | 3043.80 | | | | | | 987.22 | | | | | | 38.92 | |
| 3395 | | 28°30' | N 8 W | | | 3152.02 | | | | | | 1044.95 | | | | | | 48.06 | |
| 3520 | | 28°30' | N 11 W | | | 3261.87 | | | | | | 1103.77 | | | | | | 57.90 | |
| 3645 | | 28°30' | N 10 W | | | 3371.72 | | | | | | 1162.41 | | | | | | 68.77 | |
| 3770 | | 28°30' | N 10 W | | | 3481.57 | | | | | | 1221.14 | | | | | | 79.13 | |
| 3861 | | 30° | N 5 W | | | 3560.97 | | | | | | 1265.22 | | | | | | 84.93 | |
| 3893 | | 29° | N 2 W | | | 3588.82 | | | | | | 1280.95 | | | | | | 85.89 | |
| 3923 | | 28°30' | N 2 W | | | 3615.12 | | | | | | 1295.38 | | | | | | 85.89 | |

CLOSURE 1723.54' N 0° 56' E
1723.31' NORTH
28.08' EAST

SCALE 1" = 200'

