

WORK SHEET FOR STEPWISE CALCULATION

PRESSURE (SURFACE) (P<sub>c</sub> & P<sub>w</sub>)  
RATE NO. 2

FORM C-122-E

PROPERTY MESA PETROLEUM CORP. LEASE NASH UNIT  
 SECTION 12 TOWNSHIP 23S RANGE 29E  
 DATE 10-25-76  
 CATION: UNIT F H 12445 L/H 1.00 G 0.721 CO<sub>2</sub> 0.00 N<sub>2</sub> 0.00 H<sub>2</sub> 0.00  
 d F<sub>r</sub> Q<sub>m</sub> M<sup>2</sup>cfd (L/H) (F<sub>r</sub>Q<sub>m</sub>)<sup>2</sup> P<sub>cr</sub> 668 T<sub>cr</sub> 398

| LINE | ITEM                                             | SOURCE | 1       | 2       | 3       | 4       | 5       | 6   | 7 | 8 | 9 | 10 |
|------|--------------------------------------------------|--------|---------|---------|---------|---------|---------|-----|---|---|---|----|
| 1    | H                                                |        | 12445   | 6223    |         |         |         |     |   |   |   |    |
| 2    | GH                                               |        | 8973    | 4486    |         |         |         |     |   |   |   |    |
| 3    | 37.5GH                                           |        | 336482  | 168241  |         |         |         |     |   |   |   |    |
| 4    | P <sub>c</sub> or P <sub>n</sub>                 |        |         |         |         |         |         |     |   |   |   |    |
| 5    | P <sub>r</sub>                                   |        | 4202.2  | 3594.2  | 3584.8  | 2967.8  | 2940.0  |     |   |   |   |    |
| 6    | T                                                |        | 6.29    | 5.38    | 5.37    | 4.44    | 4.40    |     |   |   |   |    |
| 7    | T <sub>r</sub>                                   |        | 640     | 588     | 588     | 535     | 535     |     |   |   |   |    |
| 8    | Z                                                |        | 1.61    | 1.48    | 1.48    | 1.34    | 1.34    |     |   |   |   |    |
| 9    | P/Z P/Z                                          |        | 0.909   | 0.821   | 0.820   | 0.702   | 0.700   |     |   |   |   |    |
| 10   | P/TZ                                             |        | 4625.43 | 4380.02 | 4373.84 | 4225.26 | 4197.67 |     |   |   |   |    |
| 11   | (P/TZ) <sup>2</sup> /1000                        |        | 7.2272  | 7.4553  | 7.4448  | 7.8977  | 7.8461  |     |   |   |   |    |
| 12   | L/H(F <sub>r</sub> Q <sub>m</sub> ) <sup>2</sup> |        |         |         |         |         |         |     |   |   |   |    |
| 13   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 14   | I <sub>n</sub>                                   |        | 11 + 12 |         |         |         |         |     |   |   |   |    |
| 15   | I <sub>n</sub>                                   |        | 10 + 13 |         |         |         |         |     |   |   |   |    |
| 16   | I <sub>n</sub>                                   |        | 138.366 | 134.132 | 134.321 | 126.619 | 127.452 |     |   |   |   |    |
| 17   | I <sub>n</sub>                                   |        |         | 608     | 617     | 617     | 645     | 643 |   |   |   |    |
| 18   | I <sub>n</sub>                                   |        |         | 272.497 | 272.687 | 260.941 | 261.773 |     |   |   |   |    |
| 19   | I <sub>n</sub>                                   |        |         |         | 168248  |         | 168844  |     |   |   |   |    |
| 20   | I <sub>n</sub>                                   |        |         |         | 168248  |         | 337091  |     |   |   |   |    |
| 21   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 22   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 23   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 24   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 25   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 26   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 27   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 28   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 29   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 30   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 31   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 32   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 33   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 34   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 35   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 36   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 37   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 38   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 39   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 40   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 41   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 42   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 43   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 44   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 45   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 46   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 47   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 48   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 49   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 50   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 51   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 52   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 53   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 54   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 55   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 56   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 57   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 58   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 59   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 60   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 61   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 62   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 63   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 64   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 65   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 66   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 67   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 68   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 69   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 70   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 71   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 72   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 73   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 74   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 75   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 76   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 77   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 78   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 79   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 80   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 81   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 82   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 83   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 84   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 85   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 86   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 87   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 88   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 89   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 90   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 91   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 92   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 93   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 94   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 95   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 96   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 97   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 98   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 99   | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |
| 100  | I <sub>n</sub>                                   |        |         |         |         |         |         |     |   |   |   |    |

Delta P = 138.366 + 4[ 134.321 ] + 127.452 = 1009445 = 1256.9  
 3[ 336482 ]  
 P = 4202.2 - 1256.9 = 2945.3

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ALBANY, N. Y.