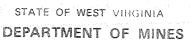
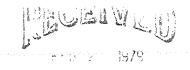


4500 Benson GLADE RUN 300







OIL & GAS DIVISION

Oil and Gas Division WELL PECOPO

| • | W ELL | KECUKU | | Rotary | |
|---|--|------------------|--|--|-----------------------|
| Quadrangle Brownton 71/2 | | | | Cable | Gas <u>XX</u> Comb |
| | | | | | Comb L Storage |
| Permit No. HAR-1240 | | | | Disposal | - |
| | | | | Disposai | (Kind) |
| Company Petroleum Development Co | rporation | | | | |
| Address P.O. Box 26, Bridgeport, | W.V. 26330 | Casing and | Used in | Left | Cement fill up |
| Farm Lillie Bartlett Ac | res 300 | Tubing | Drilling | in Well | Cu. ft. (Sks.) |
| Location (waters) Stouts | | Size | | | |
| Well No. two Ele | | 20-16 | | | |
| District Simpson County Har | rison | Cond. | | | |
| The surface of tract is owned in fee by | | 13-10" | | | |
| Tonis H. Stout et.ux | | 9 5/8 | | - | |
| Address Rt.1, Box 495, Mt. Clare, | W.V. | 8 5/8 | 919 | 919 | 178 sks |
| Mineral rights are owned by Same | | 7 | | | |
| Address | | 5 1/2 | | | |
| Drilling Commenced 8/20/78 | | 4 1/2 | 4370 | 4370 | 235 sks |
| Drilling Completed 8/26/78 | | 3 | | | • |
| Initial open flowcu. ft | | 2 | | | |
| Final production 202m cu. ft. per day _ | bbis. | Liners Used | | | |
| Well open 48 hrs. before test_ | 1450 RP. | | | | |
| Well treatment details: | | Attach copy of o | ementing rec | ord. | |
| Benson 600 bbl | 20,000 80/ | | | | |
| | 40,000 20/ | | | | · |
| | 10,000 80/ | | | | |
| | 30,000 20/4 | 40 | | | |
| | | | | *************************************** | |
| | | | | | |
| Coal was encountered at | Feet. | | Inch | es | |
| Fresh water Fee | et | Salt V | Vater | | Feet |
| Producing Sand Benson, Bradford | | Depth | 4314-19 | 3548-52 | |
| | | 1 | | | |
| Formation Color Hard or Soft | Top Feet | Bottom Feet | Oil, Gas o | r Water 4 | ' Remarks |
| | METALORISM PROGRAMMENT AND THE RECONSTRUCTION OF THE PROGRAMMENT AND THE PROGRAMMENT A | | TO SERVICE AND ADDRESS OF THE PARTY OF THE P | The state of the s | |
| | | · | | | |
| Clay Shale | 0 | 7.5 | | | |
| Sand & Shale | 75 320 | 320 | | | |
| Shale | 385 | 785 1090 | | | |
| Sand & Shale | 1090 | 1250 | | | |
| Lime | 1250 | 1350 | | | |
| Big Lime | 1350 | 1500 | 1 | | |
| Injun | 1500 | 1550 | | | |
| Shale | 1550 | 1810 | | | |
| Gantz | 1810 | . 1820 | | | |
| Shale | 1820 | 1840 | | | |
| 50 | 1840 | 1870 | | | |
| Shale 30 | 1820 | 1880 | | | |
| Shale | 1880 | 1920 | | , | |
| 4th | 1920 | 2260 | | | |
| Shale | 2260 2280 | 2280 | | | |
| 5th | 2335 | 2335 | | | |
| Shale | 2365 | 2700 | | | |
| Upper Speechly | 2700 | 2740 | | | • |
| Shale | 2740 | 2930 | | | |
| Lower Speechly and a property of the latest | 2930 | 2950 | | | |

2950

3210

3210

(over) 3225

Shale

Balltown

^{*} Indicates Electric Log tops in the remarks section.

| Shale 3530 3555 | Formation Co | olor Hard or Soft | Top Feet | Bottom Feet | Oil, Gas or Water * Remarks |
|--|---|-------------------|--|--|--|
| | Bradford Shale Riley Shale Benson | | 3530 3555 4050 4065 | 3555 4050 4065 4310 4320 4468 | T.D. Logger |
| | era | | and the second of the second o | . 1 | |
| | | | | And other transport of the state of the stat | |
| | as s | | | | . Makana makana wa 1186 kwa 1866 a wa 186 |
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| | | | | | |
| | | | | | . 1. September 1961 - Al Leither tha Al Life is a 1880 se An Leither an Amerika and Amerika and Amerika and Amerika and Amerika An Leither and Amerika and |
| | | | | | the property of the section of the s |
| | | | | | to experience to the second of the experience o |
| | | | | | |
| | | | | | eraul 1993 - Alfey 1997 - William |
| | | | | | |

APPROVED Petroleum Development Corp. Owner

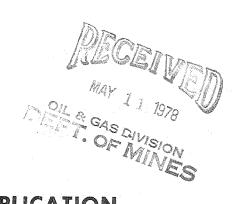
By (Title)

Date_

February 20

Petroleum Engineer





Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

| TO THE DEPARTMENT OF MINES, Charleston, W. Va. | 70 A 19757 | May 9, 1978 | |
|--|--|--|-----------------------|
| Surface Owner Tonis H Stout etux | DATE_ | Petroleum Developme | nt Cornoration |
| Rt 1 Box 495 Mt Clare WV | | P O Box 26 Bridgepo | |
| Mineral Owner Same | | Lillie Bartlett | |
| Address | | n (waters) Stouts Run | |
| Coal Owner Same | | PPP TO THE PROPERTY OF THE PRO | |
| Address | | Hk Simpson | |
| Coal Operator | | Water . | |
| Address | —————————————————————————————————————— | rigie | |
| THIS PERMIT MUST BE POSTED AT THE | WELL SITE | | |
| All provisions being in accordance with C of the W. Va. Code, the location is hereby for <u>drilling</u> . This permit she operations have not commenced by 9- | y approved INSPECTOR INSPECTOR OF SERVICE OF | rified Paul Garrett | |
| Deputy Director - Oil & Gas Division | rhone | | |
| GENTLEMEN: | | | |
| The undersigned well operator is entitled to dr title thereto. (or as the case may be) under grant Frances E Stout Petroleum De made to Harrison 19, in County, Book | t or lease dated Nelopment Corp | derivative | by Tonis H and |
| NEW WELLDRILL DE | EPERR | EDRILLFRACTU | JRE OR STIMULATE |
| OIL AND GAS WELL ORIGINALLY | Y DRILLED BEFORE | JUNE 5, 1969. | |
| The enclosed plat was prepared by a registered have been notified as of the above date. The above named coal owners and/or operator | are hereby notified th | at any objection they wish to | make, or are required |
| to make by Section 3 of the Code, must be received | ed by, or filed with the | he Department of Mines with | in ten (10) days. * |
| Copies of this notice and the enclosed plat were or coal owners at their above shown respective a same day with the mailing or delivery of this copy | ddress | day | before, or on the |
| PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO: | Very truly PETROLEC (Sign Nam | " H I I I | ATION |
| WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY | Address | P O Box 26 Street | |
| P. O. BOX 879 | of Well Operator | Bridgep ort | |
| MORGANTOWN, WEST VIRGINIA 26505 AC-304 - 292-6331 | | City or Town West Virginia 26 | 330 |
| RIANKET BOND. | | State | |

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of

notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

HAR-1240

PERMIT NUMBER

THIS IS AN ESTIMATE ONLY ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

| PROPOSED WORK ORDER TO | XXDRILL | DEEPEN F | RACTURE-STIMIILATE | | | |
|--|------------------------------|-----------------------------------|--|--|--|--|
| DRILLING CONTRACTOR: (If | | RESPONSIBLE AGENT | | | | |
| NAME Unknow | vá – | NAME Petroleum D | NAME Petroleum Development Corporation | | | |
| ADDRESS | | | 6 Bridgeport WV 26330 | | | |
| TELEPHONE | | | 256 | | | |
| ESTIMATED DEPTH OF COMPL | | | CABLE TOOLS | | | |
| PROPOSED GEOLOGICAL FORM | | WOTART | CABLE TOOLS | | | |
| | A.A. | . COMP. COOK | | | | |
| TYPE OF WELL: OIL_ | | | | | | |
| | RECYCI | LING WATER FLO | OODOTHER | | | |
| TENTATIVE CASING PROGRAM | | | | | | |
| | 1 | | | | | |
| CASING AND TUBING | USED FOR | LEFT IN | CEMENT FILL UP | | | |
| SIZE | DRILLING | WELL | OR SACKS - CUBIC 17. | | | |
| 20 - 16 | | | | | | |
| 13 - 10 11 3/4 | 40' | 401 | Surface | | | |
| 9 - 5/8 | | | | | | |
| 8 - 5/8 | 85 0' | 850 " | Surface | | | |
| 7 | | | | | | |
| 5 ½ | | | | | | |
| 4 1/2 | | 4350* | again types taken ayan rives Auto 2000. | | | |
| 3 | | | Perf. Top | | | |
| 2 | | | Perf. Bottom | | | |
| Liners | | | Perf. Top | | | |
| | | | Perf. Bottom | | | |
| | | | | | | |
| A DDD A WILLIAM TO THE TOTAL WAY | DEDMING 30' | 100 | 600 | | | |
| APPROXIMATE FRESH WATER | DEPTHS FEET | SALT WATER_ | FEET_ | | | |
| APPROXIMATE COAL DEPTHS _ | | 5 | <u>and the second of the second </u> | | | |
| IS COAL BEING MINED IN THE | AREA? NO | BY WHOM? | , | | | |
| TO DRILL: | | | u poviški popovije popači | | | |
| SUBMIT FIVE (5) COPIES (| OF OG - 1, \$100.00 PERM | MIT FEE, PERFORMANCE BO | OND AND PERMANENT COPY | | | |
| OF PLAT. | | | | | | |
| TO DRILL DEEPER OR REDRILI | L: | | | | | |
| | | TAYAT TATABARAN AVAN | <u> </u> | | | |
| WELLS DRILLED PRIOR TO MUST ALSO BE SUBMITTED | O 1929, A PERMANENT (| COPY OF THE PLAT AND T | D PERFORMANCE BOND. ON THE ORIGINAL WELL RECORD | | | |
| TO FRACTURE - STIMULATE: | | | | | | |
| | | | | | | |
| OIL AND/OR GAS WELL OR | IGINALLY DRILLED BEFO | ORE JUNE 5, 1929, FIVE (5) (| COPIES OG - 1, PERFORMANCE | | | |
| BOND, FERMANENT PLAT | AND ORIGINAL WELL RE | CORD. | | | | |
| OIL AND/OR GAS WELL OR | IGINALLY DRILLED ON A | AND/OR AFTER JUNE 5, 192 | 9, FIVE COPIES OG - 1, SHOW- | | | |
| ING ORIGINAL PERMIT NUM | MBER, AND PERFORMANCE | E BOND. | | | | |
| Required forms must be filed | within ninety (90) days of | completion for hand release | Inspector to be notified twenty- | | | |
| four (24) hours in advance. | (ob) days (v | completion for bond release. | inspector to be notified twenty- | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| * | * | | | | | |
| The Call | | | | | | |
| The following waiver must be thereof. | e completed by the coal op | perator if the permit is to be i | ssued within ten days of receipt | | | |
| | | | | | | |
| WAIVER: I the undersigned, Agen | t for | Coal Company, Owner | or Operator of the coal under | | | |
| this lease have examined | d and place on our mine n | naps this proposed well locati | on. | | | |
| | | | ell being drilled at this location, | | | |
| providing operator has co | mplied with all rules and an | rulations in Auticles 4 5 | of being drilled at this location, Chapter 22 of the West Virginia | | | |
| Code. | p wivii aii iuics aiiu leş | 544400113 III Arucies 4, 5, and 7 | , onapter 22 of the West Virginia | | | |
| | | | | | | |
| •\$ | | | | | | |
| | | 87 - | Coal Comment | | | |
| | | Fo | r Coal Company | | | |

Official Title