

Plot Log_ Card CSD_ LATITUDE 39 JUSTUS EAKIN 271 1/2 Ac. J. E. CAIN 73 Ac. Br. of North For Richwood F. W. BARTLETT 272 Ac. H. L. SCOTT 58 Ac. HENRY KYLE HENRY KYLE 98 Ac. 712 Ac. SURFACE -Mèrle Goodrich Elyria, Ohio lin 200 F.W. Bartlett#5, Elev. 1220.01 ereby certify that this a Fracture..... New Location..... Drill Deeper...... Map No. 1 N 58 E 2/3 7 Abandonment... PENNZOIL COMPANY STATE OF WEST VIRGINIA DEPARTMENT OF MINES Address P.O. Box 1588, Parkersburg, W. Va. 26101 OIL AND GAS DIVISION CHARLESTON F. W. BARTLETT _Acres 272 Lease No. 2675 WELL LOCATION MAP 6 Well (Farm) No. -___ Serial No. FILE NO WET-623 1434.23 Elevation (Spirit Level) _ BIG RUN 7.5, LITTLETON 15 44 131 27198 ___District __GRANT WETZEL + Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude CURTIS A. LUCAS and longitude lines being represented by border lines as shown. Surveyor's Registration No.: File No. 1631 _Drawing No._ - Denotes one inch spaces on border line of original tracing. 7-1-77 47-103 _ Scale . Date

3644 - Fifth Sons

Coal was encountered at __

Producing Sand Fourth & Gordon

Fresh water_



STATE OF WEST VIRGINIA

DEPARTMENT OF MINES

Oil and Gas Division WELL RECORD

DECEIVED NOV 3 - 1977

OIL & GAS DIVISION DEFT. OF MINES

Oil_

Rotary_X

_ Inches

_Salt Water__

Depth

Gas 32 Cable_ QuadrangleBig Run 7.51 Recycling Comb. Water Flood___ Storage_ Permit No. Wet-623-Rev. Disposal__ (Kind) 26101 Casing and Pennzoil Company Company___ Used in Left Cement fill up Address P. O. Box 1588, Parkersburg, WV **Tubing** Drilling in Well Cu. ft. (Sks.) Farm F. W. Bartlett Acres 272 Location (waters) Richwood Run of Fishing Crk. Size _ Elev_ 1484.42 20-16 __ County_Wetzel District Grant Cond. 13-10" The surface of tract is owned in fee by___ Mr. Merle Goodrich 9 5/8 Address 925 E.Broad, Elyria, Ohio 8 5/8 Mineral rights are owned by Pennzoil Company 1740 1740 250 sks. 5 1/2 Address Parkersburg, WV 26101 4 1/2 Drilling Commenced 8-13-77 3460 3460 120 sks. Drilling Completed 8-19-77 8,000 __cu. ft. . Initial open flow __ bbls. Liners Used Final production 6.000 cu. ft. per day 4 _bbls. Well open ___ _hrs. before test_ Well treatment details: Attach copy of cementing record. Fractured 8-25-77 w/724 BW, 27,000# sd., 1000 gal. acid 15%

| Formation Color Hard or Soft | Top Feet | Bottom Feet | Oil, Gas or Water * Remarks |
|------------------------------|----------|-------------|-----------------------------|
| Shale | 0 | 130 | |
| Sand | 130 | 138 | |
| Shale & Silt | 138 | 242 | , |
| Sand | 242 | 266 | |
| Shale | 266 | 287 | · P |
| Sand | 287 | 296 | |
| Shale & Silt | 296 | 530 | |
| Sand | 530 | 541 | |
| Shale | 541 | 773 | 341.0 |
| Sand | 773 | 800 | 3460 2729 |
| Slate | 800 | 1062 | 2729 |
| Sand | 1062 | 1122 | 73/ Wpl. For |
| Shale Break | 1122 | 1130 | 7 2 1 Stpl. 1-86 |
| Sand | 1130 | 1187 | |
| Slate | 1187 | 1228 | |
| Pittsburgh Coal | 1228 | 1240 | |
| Shale & Silt | 1240 | 1651 | |
| Sand | 1651 | 1667 | 9462 |
| Slate | 1667 | 1747 | 1477. |
| Sand | 1747 | 1763 | 2462 |
| Slate | 1763 | 1780 | |
| Salt Sand | 1780 | 1935 | |
| Shale | 1935 | 2021 | |
| Salt Sand | 2021 | 2078 | |

Feet

__Feet __

(over)

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

| Formation Co | olor | Hard or Soft | Top Feet 35 | Bottom Feet | Oil, Gas or Water . * Remarks |
|--|------|--------------------|--|--|--|
| Slate Salt Sand Shale Sand Slate Little Lime Pencil Cave Big Lime Loyalhanna Pocono Big I Shale Berea Shale Gordon Shale Fourth Shale Total Depth | njun | | 2078 2108 2174 2261 2282 2434 2448 2462 2519 2560 2729 3071 3114 3306 3338 3383 3444 | 2108 2174 2261 2282 2434 2448 2462 2519 2560 2729 3071 3114 3306 3338 3383 3444 3460 3460 | |
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| Date | November 1, | 10 .77 |
|----------|------------------|----------|
| APPROVED | PENNZOIL COMPANY | g, Owner |
| Ву | Centra A- Locas | •• |

Signed by Colertin



STATE OF WEST VIRGINIA

DEPARTMENT OF MINES



OIL & GAS DIVISION DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

| | · |
|--|--|
| TO THE DEPARTMENT OF MINES, | |
| . Charleston, W. Va. | DATE July 6, 1977 |
| Surface Owner Mr. Merle Goodrich | Company_PENNZOIL COMPANY |
| Address 925 E. Broad , Elyria, Ohio 44035 | Address P. O. Box 1588, Parkersburg, W. Va. |
| Mineral Owner Pennzoil Company | Farm F. W. Bartlett Acres 272 |
| Address Parkersburg, W. Va. 26101 | Location (waters) Richwood Run of Fishing Crk. |
| Coal Owner | Well No. 6 Elevation 1434.23 |
| Address | District Grant County Wetzel |
| Coal Operator COAL NOT OPERATED | _ |
| Address | |
| THIS PERMIT MUST BE POSTED AT THE WELL SITE | |
| l' provisions being in accordance with Chapter 22, | SPECTOR |
| t e e e e e e e e e e e e e e e e e e e | BE NOTIFIED Phillip Lee Tracy |
| operations have not commenced by 11-8-77 | |
| Hotel hode | DRESS Middlebourn, W. Va. |
| | DNE |
| GENTLEMEN: | |
| The undersigned well operator is entitled to drill upon the a | bove named farm or tract of land for oil and gas, having fee |
| title thereto, (or as the case may be) under grant or lease date | ed June 8, 19 01 by F. W. Bartlet |
| et ux made to Carter Oil Company | and recorded on the day of |
| 19, in County, Book65 | Page233 |
| X NEW WELLDRILL DEEPER | REDRILL FRACTION OF COMMITATE |
| OIL AND GAS WELL ORIGINALLY DRILLED H | |
| | 321 GILL VONE 0, 1800. |
| The enclosed plat was prepared by a registered engineer or have been notified as of the above date. | licensed land surveyor and all coal owners and/or operators |
| The above named coal owners and/or operator are hereby not to make by Section 3 of the Code, must be received by, or filed | tified that any objection they wish to make, or are required d with the Department of Mines within ten (10) days. * |
| Copies of this notice and the enclosed plat were mailed by re or coal owners at their above shown respective address | day before, or on the |
| same day with the mailing or delivery of this copy to the Depar | tment of Mines at Charleston, West Virginia. |
| PLEASE SUBMIT COPIES OF ALL | ery truly yours, PENNZOIL COMPANY |
| GEOPHYSICAL LOGS DIRECTLY TO: (Si | ign Name Curtin a. Lucan |
| •*• | Well Operator Curtis A. Lucas, |
| WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY Address | P. O. Box 1588 Civil Engineering |
| P 0 80x 879 of | Street |
| MORGANTOWN, WEST VIRGINIA 26505 Well Operator | |
| AC-304 - 292-6331 | City or Town |
| · | West Virginia 26101 |
| | State |
| *SECTION 3 If no objections are filed or found by the Depa notice and plat by the department of mines, to said proposed location, the the filing of such plat, that no objections have been made by the coal opera and the well operator authorized to proceed. | artment of mines, within said period of ten days from the receipt of edepartment shall forthwith issue to the well operator a permit reciting ators or found thereto by the department and that the same is approved |
| DI AMIZET DOND | WET-623 |
| BLANKE BUNU | PERMIT NUMBER |
| "I have read and understand the reclamation requirements as set fort. Chapter 22, Article 4, Section 12-b and will carry out the specified requireme | h in 47–103 ents." |

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

| PROPOSED WORK ORDER T | O X DRILL | DEEPEN FRACTURE-STIMULATE | | | | |
|--|---|--|----------------------------------|--|--|--|
| DRILLING CONTRACTOR: (| DRILLING CONTRACTOR: (If Known) | | RESPONSIBLE AGENT: | | | |
| NAME RANGE | Clint Hurt | NAME Pennzoil Company ADDRESS Parkersburg, West Virginia 26101 TELEPHONE 422-6565 | | | | |
| ADDRESS | | | | | | |
| TELEPHONE | | | | | | |
| ESTIMATED DEPTH OF COM | PLETED WELL: 3644 | ROTARY X | CABLE TOOLS | | | |
| PROPOSED GEOLOGICAL FO | | | | | | |
| TYPE OF WELL: OII | Z_X_GASC | OMB. STORAGE | DISPOSAL | | | |
| | | | ODOTHER | | | |
| | | , | | | | |
| TENTATIVE CASING PROGR. | AM: | • | • | | | |
| • | | | · | | | |
| CASING AND TUBING SIZE | USED FOR DRILLING | LEFT IN WELL | Camerata Firm Of | | | |
| 20 - 16 | DRILLING | , weer, | OR SACKS - CUBIC FT. | | | |
| 13 - 10 | | | · | | | |
| 9 - 5/8 | | | | | | |
| 8 - 5/8 | | | | | | |
| 7 | · 1690¹ | 1690' | Cement to surface | | | |
| 5 ½ | 2000 | 2000 | | | | |
| 4 ½ | 3644 1 | 3644 | 150 sks. | | | |
| 3 | | | Perf. Top | | | |
| 2 | | | Perf. Bottom | | | |
| Liners | | | Perf. Top | | | |
| * | | | Perf. Bottom | | | |
| | | | | | | |
| APPROXIMATE FRESH WATE | ER DEPTHS FEET | SALT WATER | FEET | | | |
| APPROXIMATE COAL DEPTH | IS | | | | | |
| WELLS DRILLED PRIOF MUST ALSO BE SUBMIT TO FRACTURE - STIMULATE OIL AND/OR GAS WELL BOND, PERMANENT PL OIL AND/OR GAS WELL | S OF OG - 1, SHOWING ORIGI TO 1929, A PERMANENT CO TED. | OPY OF THE PLAT AND T REJUNE 5, 1929, FIVE (5) C ORD. ND/OR AFTER JUNE 5, 1929 | COPIES OG - 1, PERFORMANCE | | | |
| Required forms must be f four (24) hours in advance | iled within ninety (90) days of c e. | ompletion for bond release. | Inspector to be notified twenty- | | | |
| | . • | | | | | |
| The following waiver mus | t be completed by the coal ope | rator if the permit is to be i | ssued within ten days of receipt | | | |
| | gent for | | | | | |
| | Coal Company l | | | | | |
| | as complied with all rules and regu | | | | | |
| | | | | | | |
| \$ | -11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Fo | or Coal Company | | | |
| | | Martin Martin de | Official Title | | | |



Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

| • | | | |
|---|---------------------------|---|--|
| TO THE DEPARTMENT OF MINES. | • | | |
| Charleston, W. Va. | DATE Aug | gust 8, 1977 | |
| Surface Owner Mr. Merle Goodrich | | NNZOIL COMPANY | |
| Address 925 E. Broad , Elyria, Ohio 44035 | | | kersburg, W. Va. 26 |
| Mineral Owner Pennzoil Company | | Bartlett | |
| Address Parkersburg, W. Va. 26101 | | | of Fishing Creek |
| Coal Owner | - Bookson (was | • | Elevation 1484.42 |
| Address | | | County Wetzel |
| Coal Operator COAL NOT OPERATED | | Big Run 7.5 | |
| HAD PERMIT MUST BE POSTED AT THE WELL SITE | • | | |
| all provisions being in accordance with Chapter 22, f the W. Va. Code, the location is hereby approved | : | | |
| VI | NSPECTOR O BE NOTIFIEI | Phillip T | racy |
| | DDRESS | Middlebo | urn, W.Va. |
| Cil a C Di i i | HONE 758-457 | 73 | |
| GENTLEMEN: | | | • |
| in County, Book65 X | REDRILI BEFORE JUNE | FRACTU | |
| The above named coal owners and/or operator are hereby n | notified that any | objection they wish to | meka or ara required |
| to make by Section 3 of the Code, must be received by, or fil Copies of this notice and the enclosed plat were mailed by or coal owners at their above shown respective address same day with the mailing or delivery of this copy to the Dep | registered mail, or | r delivered to the abov — day —————————————————————————————————— | e named coal operators before, or on the /irginia. |
| | | PENNZOIL COMPAN | |
| GEOPHYSICAL LOGS DIRECTLY TO: | (Sign Name) | Well Operator | - Commercial Commercia |
| VEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY Address | 3 | P. O. Box 1588 Street | Curtis A. Lucas, Civil Eng. Dept |
| of O. BOX 879 ORGANTOWN, WEST VIRGINIA 26505 Well Opera C-304 - 292-6331 | tor | Parkersburg, City or Town | |
| | | West Virginia State | 26101 |
| *SECTION 3 If no objections are filed or found by the De otice and plat by the department of mines, to said proposed location, the filing of such plat, that no objections have been made by the coal opened the well operator authorized to proceed. | he department shall: | forthwith issue to the wel | 1 Amerator a varmit manitima |
| | **** | WET-623-REV | PERMIT NUMBER |

47-103

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

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

| PROPOSED WORK ORDER TO | D. X DRILL | DEEPEN FRACTURE-STIMULATE | | | |
|--|--|--|---|--|--|
| DRILLING CONTRACTOR: (If Known) | | RESPONSIBLE AGENT: | | | |
| NAME Clint Hurt and | Assoc. | NAME Pennzoil Company | | | |
| ADDRESS | | ADDRESS Parkersb | urg, W. Va. 26101 | | |
| TELEPHONE | | TELEPHONE 422- | 6565 | | |
| ESTIMATED DEPTH OF COMP | | ROTARY X | CABLE TOOLS | | |
| PROPOSED GEOLOGICAL FOR | | • | | | |
| TYPE OF WELL: OIL | X GAS CO | MBSTORAGE | DISPOSAL | | |
| | | | ODOTHER | | |
| | ing the state of | | · San | | |
| TENTATIVE CASING PROGRA | .M: | | | | |
| CASING AND TUBING | USED FOR | LEFT IN | CEMENT FILL UP | | |
| SIZE | DRILLING | WELL. | OR SACKS - CUBIC FT. | | |
| 20 - 16 | | | | | |
| 13 - 10 | | | | | |
| 9 - 5/8 | • | *** | | | |
| 8 - 5/8 | 17/01 | | | | |
| 5 1/2 | 1740 ' | 1740 | Cement to surface | | |
| 4 ½ | 3694¹ | 36941 | 150 sks. | | |
| 3 | : \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 1 | Perf. Top | | |
| 2 | | | Perf. Bottom | | |
| Liners | | | Perf. Top | | |
| | | | Perf. Bottom | | |
| APPROXIMATE FRESH WATE | R DEPTHSFEET | SALT WATER | FEET | | |
| APPROXIMATE COAL DEPTHS | 3 | *************************************** | | | |
| IS COAL BEING MINED IN T | HE AREA? None | BY WHOM? | | | |
| TO DRILL: | | | • | | |
| | S OF OG - 1, \$100.00 PERMIT | FEE, PERFORMANCE BO | OND AND PERMANENT COPY | | |
| | | May Set | | | |
| TO DRILL DEEPER OR REDR | | | | | |
| | S OF OG - 1, SHOWING ORIGIN TO 1929, A PERMANENT CO FED. | | | | |
| | 3 | | | | |
| TO FRACTURE - STIMULATE: | | | | | |
| | ORIGINALLY DRILLED BEFOR T AND ORIGINAL WELL REC | | COPIES OG - 1, PERFORMANCE | | |
| OIL AND/OR GAS WELL | ORIGINALLY DRILLED ON AN | D/OR AFTER JUNE 5, 1929 | , FIVE COPIES OG - 1, SHOW- | | |
| • | | en e | | | |
| Required forms must be fill four (24) hours in advance | led within ninety (90) days of co. | ompletion for bond release. | Inspector to be notified twenty- | | |
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| •• | | | | | |
| | | | | | |
| thereof. | be completed by the coal oper | • | | | |
| | gent for | • | | | |
| this lease have exam | ined and place on our mine ma | ps this proposed well locati | on. | | |
| We the | Coal Company h | nave no objections to said we | ell being drilled at this location, | | |
| | s complied with all rules and regu | | | | |
| Code. | | | | | |
| | | | | | |
| State State | | Po | or Coal Company | | |
| | | | | | |

Official Title