

POSTED FIELD PRICES
Kevin-Sunburst 1.15
Pondera 1.05
Cut Bank 1.85
Cut Creek 1.17

DAILY AVERAGE PRODUCTION
Week Ending November 14, 1936
United States 3,040,400 Increase 66,600
Montana 18,450 Decrease 650

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CUT BANK AGAIN EXTENDED SOUTHWEST

TWO OF THREE TURNER VALLEY WELLS ARE IN, BUT PRODUCING NAPHTHA

Two of three wells near the sensational T. V. E. oil well in west Turner Valley were completed this week but neither as an oil well. They were average naphtha producers, in place of crude. The third well which is regarded as almost certain of oil production lost a bailer while unloading rotary mud and is fishing.

The unfinished well is the Foundation Royalties well, located a mile and a half south of the T. V. R. gusher which is making 800 barrels per day of high gravity crude. The Foundation had heavy showings of oil in the rotary mud, with evidence of heavy gas pressure, when the T. V. E. horizon was tapped, 400 feet in the Madison lime.

Renfrew Royalties well, a quarter of a mile east and three quarters of a mile south of the T. V. R. is rated at 75 barrels per day of naphtha, with a flow of 12,000,000 cubic feet of wet gas.

Sovereign Royalties, a quarter of a mile south of the Renfrew, is about a 60-barrel naphtha producer, with 11,500,000 cubic feet of wet gas per day.

North of the Renfrew and a half mile southeast of the TVR is British Dominion No. 4, which is making 75 barrels of naphtha.

Three critical wells which may yet establish the presence of an extensive pool of oil on the west flank of Turner Valley are yet to be completed. One is a quarter of a mile north and another a quarter of a mile south of the oil well while the third is a half mile south.

Sterling Pacific (Imperial) No. 4, to the north is drilling at 4780; B & B No. 1, to the south, is drilling at 5240 and Richfield Royalties, still farther south, is resuming drilling at 4010.

The next completion in Turner Valley will be Sterling Pacific (Imperial) No. 3, one mile due north of the T. V. R. gusher. It is drilling at 6300 feet and due to get the T. V. R. horizon about 500 feet in the lime. It is likely higher on structure than the oil well. It will be several weeks before the other two wells get to the oil horizon, to determine whether the T. V. P. is a "break" or whether it is on the east edge of an important pool 1600 feet down the west flank of Turner Valley.

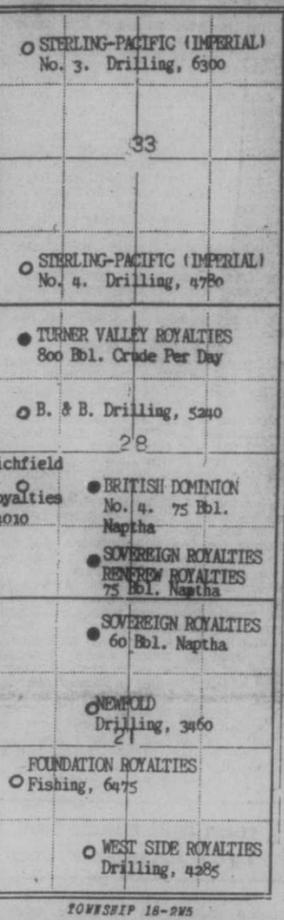
NEW ROYALTY COMPANY

Deeded Royalties Corp. has been organized in Great Falls by H. W. Mann of Great Falls, E. D. Ariens of Cooke City and D. M. Nimmons of Lincoln. Capitalization is \$100,000, divided into 400,000 shares of 25 cents par.

DAILY PRODUCTION MONTANA-WYOMING WEEK ENDED NOV. 14

Table with 2 columns: State/Well Name and Production. Includes Montana (Cat Creek, Cut Bank, Kevin-Sunburst, Pondera, Buckley Border, Dry Creek, Lake Basin) and Wyoming (Big Muddy, Elk Basin, Grass Creek, Labarge, Lance Creek, Lost Soldier, Oregon Basin, Rock River, Salt Creek, Black Mountain, Badger Basin, Byron, Dallas Derby, Dutton Creek, Ferris, Franke, Garland, Hamilton Dome, Hidden Dome, Hudson, Midway, Osage, Pilot Butte, Poison Spider, Quesaly Dome, South Casper, Teapot, Waugh Dome, Simpson Ridge, Medicine Bow).

HERE'S HOW THE WEST TURNER VALLEY MAP LOOKS



SHUTS DOWN FOR WINTER Northern Natural Gas company has shut down its Wallace No. 2 well in Section 16-37-4E, Whitlash field at a depth of 1800 feet, with a fishing job, owing to bad weather in the Sweetgrass Hills. It will be completed in the spring.

IMPERIAL IS RUNNING ALL PONDERA OIL

Imperial Oil company is buying all the storage oil as well as all available current production in Pondera oil field, giving that field its first "break" in several years. For many months, Home Oil & Refining Co. has been the only buyer in Pondera and inasmuch as Home is getting more crude than it actually needs from Cut Bank at less than posted field price, it appeared that curtailment in Pondera was inevitable. Some of the smaller producers were with no market except for occasional spot sales at less than posted field price, which is 10 cents under the Kevin price or \$1.05 per barrel.

It is reported that Imperial has some road oil contracts and inasmuch as Pondera provides the best road oil stock in Northern Montana, has instructed its Montana buyer, Montana Pipeline Co., to buy all available Pondera crude. It is reported that Standohnd, which is selling direct to Imperial, will not have enough oil to supply Imperial demands during winter months. Triangle, Teton and other companies have cleaned up all their storage. Warren Hastings, successful newcomer in the field, is selling all of his oil to the Home under a three-year contract.

Reports that Imperial was offering 10 cents above posted field price for Pondera storage oil were without definite confirmation.

MONTANA STILL HAS CHANCE FOR NEW OIL FIELD IN '36 IF WEATHER MAN CONSENTS

Several Wells Close Enough To Sands That New Field Will Result From Few Weeks Of Further Drilling

Montana has a few more chances for discovery of a new oil field during the present year, despite winter coming on, for a few more wildcats are due to pick up probable productive horizons.

There are a dozen wildcat wells active in the state four of which are in the Sweetgrass Arch and the others scattered through the east central and southern portions of the state. Three of these four, on Bull Head, South Valier and North Pondera, are likely of completion this year. The fourth, the Smith-Schwengel test on Benton Lake structure, NE NE 1/4 SW 1/4 14-22N-2E, is barely spudded.

In the central part of the state, Winifred structure may have a completion. Judith Operating Co. Government No. 2, NW 1/4 NE 1/4 5-22N-17E, is drilling below 3,200 feet where 8-inch casing has been set, after pulling the 6 1/2-inch string.

On another fold in the same area, Emmons-Pennock No. 3, SE NE 1/4 NE 1/4 6-21-18E, is drilling at 1065, with 16-inch pipe set at 410.

On Hardin dome, Big Horn county Daniels Petroleum on C SE 1/4 SE 1/4 13-18-33E may have a completion this year, having recently changed over from cable to rotary tools at 3550 feet. Near the town of Hardin, E. A. Lammers & Son-Berthold No. 1, SW SW 1/4 NW 1/4 1-18-32E, has completed a gas well at 750 and will not drill deeper.

One Carbon county wildcat is out of the running is the Round Butte Oil Co. No. 2, CWL NE 1/4 SE 1/4 3-SE-23E, which was abandoned at 790 as a dry hole.

In the same county, East Bridger Oil & Gas Co., SE 1/4 SE 1/4 23-6N-23E, is drilling in Colorado shale at 1510. In Judith Basin county, Hobson

Tarrant Adds 10 Square Miles Of Proven Ground To Cut Bank Oil Field

Another southwest extension to Cut Bank field this week added from 10 to 13 square miles of producing territory to Montana's most remarkable oil field, located in Glacier county.

R. C. Tarrant's Reichhoff No. 3, well, in NE 1/4 NE 1/4 36-32-6W, six miles south of the town of Cut Bank, is a producer, rated from 25 to 50 barrels. It is two and three-quarters miles southeast of the recently completed Patterson-Chatterton producer in Section 22-32-6W which gave a three mile southwest extension.

This well showed 60 feet of sand, with two streaks of saturation. The sand was found at 3005 and continued to 2063. First oil showed at 3015 but the principal production came from 3049 to 3045 and from 3049 to 3063. The hole was carried into the Ellis shales from 3063 to 3072. Oil rose 600 feet in the hole, with no water. It swabbed 40 barrels in 14 hours. It may be shot with nitro glycerin.

It looks quite like the Chatterton well which is now making 60 barrels per day.

CUT BANK IS STILL GOING FULL BLAST

Cut Bank producers, with fingers crossed, continued to produce their wells at 100 percent capacity during the past week, with no hint of curtailment, although Canadian buyers ordinarily drop out of the market before this time.

Not only is the Cut Bank field marketing all current production but practically all the storage oil has been cleaned up including some 100,000 barrels of storage oil of Santa Rita Oil company, purchased by Imperial. Santa Rita during the past week changed pipeline connections, to start filling refinery storage at the Northwestern Refining plant west of Cut Bank, which will be ready for operation early next year.

But little new production has been added in recent weeks and the past week saw two completions, one, the Tarrant southwest and the other on Tribal lands in the Big Bend pool.

Texaco-Tribal 121 No. 3, C SE 1/4 SE 1/4 36-33-6W, is about a 45-barrel well. It had sand from 3030 to 3033, drilling into the Ellis from 3033 to 3337. Fluid rose 1300 feet and it swabbed 93 barrels in 9 1/2 hours.

Texaco-Tribal 121 No. 4, C NW 1/4 SE 1/4 36-33-6W, was shot with 20 quarts of nitro glycerin and greatly improved. Whereas it formerly made 41 barrels in the first 24 hours, it made 108 barrels in 24 hours following the shot.

Cobb-A1, 115 No. 2, CEL NE 1/4 SE 1/4 31-33-5W, drilling, 2200. Drumheller - Reservation-Tarrant No. 1, C SW 1/4 SW 1/4 21-34-6W, drilling, 1300.

Hanson-Tribal 128 No. 1, SE 1/4 NE 1/4 12-32-6W, sidetracking bit at 600; bottoms at 735. Hole-Tribal 124 No. 2 C NW 1/4 SE 1/4 1-32-6W, drilling, 1725.

Montana Power Gas-Wallace No. 1, CWL NE 1/4 SE 1/4 5-32-5W, drilling.

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EXTENSION



FIND NO OIL IN NEW "HIGH" IN ALOE AREA

Proving a "high" structural condition northwest of Aloe did not develop any oil for O. E. Lee and associates of Billings, with the

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Nitro Shot Works Where Acid Fails in Kevin Well

The adage that there is more than one way of skinning a cat applied this week to the oil business as Big West Oil company returned to the old fashioned method of shooting a well into production with nitro glycerin, in Kevin oil field.

Big West-Dahlquist No. 4, NE NE 1/4 NW 1/4 21-35-3W, was treated with 4,000 gallons of acid and it failed to respond, despite the fact that the acid was held on the formation for 72 hours under 350 pounds pressure. When the well was opened

up, Big West pumped back nearly all of its acid, showing that it had failed to penetrate a lime formation that ordinarily reacts to hydrochloric acid.

Accordingly, a 100-quart shot of nitro glycerin was fired on the lime and the well instantly responded with a flow of gas and oil, the latter at the rate of about 40 barrels per day. However, it is being re-treated with acid to increase the flow.

Big West revived its No. 3 Dahlquist, after having treated with 3,000 gallons of acid—the largest "shot" ever used in this field. In that instance the acid disappeared

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Location of Well Made By Irwin in 1929

The location of R. C. Tarrant's southwest extension to Cut Bank oil field is the result of the geological work of Joe Irwin back in 1929 when he was employed by Producers & Refiners corporation.

Irwin located a well for P. & R. at that time but that company withdrew from Montana without testing any of the leases it had taken in Cut Bank district. It was not until the fall of 1932 that Tarrant brought in his first commercial oil well in Cut Bank field—the well which brought about the development of the gigantic oil pool.

When Irwin became geologist for Tarrant he submitted his work on the area southwest in the belief that it was a separate condition, rather than an extension to Cut Bank field, which was then 14 miles distant from Tarrant operations. Subsequently, in 1935 Tarrant drilled in Section 27-32-5W, finding Cut Bank sand and a show of oil but not in commercial quantities. Not until after the Big Bend pool developed, in 1936, did he decide to drill Irwin's location. Before he could complete, however, the Patterson-Chatterton well was in production, proving the westward trend of the Cut Bank sandstone.

Southwest Wells Indicate Buried Coast Veers West

Ever since it was established that the Texaco-State well in Sec. 16-32-5W was in Cut Bank field and not on a separate structure, geologists have debated whether the ancient seacoast swung southeastward or southwestward from the Texaco well.

Texas company, believing that the seacoast swung westward, drilled three wells south of the Marias river. All found sand but it carried water, showing a water-laden embayment in the basin north of Valier.

Tarrant's Reichhoff well is interpreted by some geologists as proving that the old Cretaceous beach swung westward, possibly going some distance toward what is now the Rocky Mountains before turning southward to follow the shape of the Sweetgrass Arch uplift.

The Tarrant and Chatterton wells indicate the possibility of continued production for a considerable distance west. These wells are producing 450 feet down the west flank of the structure from the principal producing contour of the field, as contoured on the top of the Ellis. They are 2,100 feet down the west flank of the Sweetgrass Arch from the highest contours of Kevin-Sunburst oil field, 40 miles northeast but they show no water. East closure on the Cut Bank sand is provided by lensing into the impervious lower Cretaceous shales.

CUT BANK MAY OWN GAS SYSTEM

The town of Cut Bank is contemplating a \$30,000 bond issue to build a municipal gas distributing system, expecting to buy gas from Santa Rita, whose line to the Northwestern Refinery runs past the north edge of town. It is understood that the town will pay 9 cents per thousand for its gas. The Santa Rita gas line may also be extended to Browning where the town council is considering a bond issue to finance a municipal distributing system.