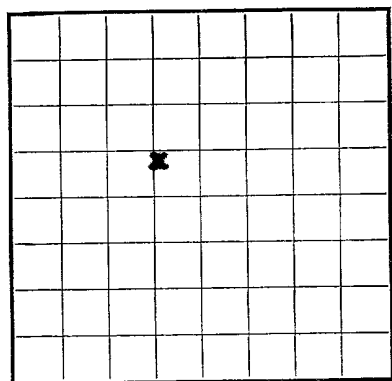




RECEIVED
JUN 12 1959
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Las Cruces
U. S. LAND OFFICE **LC-062412**
SERIAL NUMBER _____
LEASE OR PERMIT TO PROSPECT _____

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company **Pan American Petroleum Corp.** Address **Box 68 Hobbs, New Mexico**
Lessor or Tract **Malco Refineries F** Field **Empire Abo** State **New Mexico**
Well No. **4** Sec. **1** T. **18S** R. **27E** Meridian **NMPM** County **Eddy**
Location **2130** ft. [N.] of **H** Line and **1900** ft. [E.] of **E** Line of **Section 1** Elevation **3612** RDB
(Derrick floor relative to sea level)
The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.
Original Signed by **J. W. BROWN**
Signed _____
Date **June 5, 1959** Title **Area Superintendent**

The summary on this page is for the condition of the well at above date.

Commenced drilling **April 24**, 19 **59** Finished drilling **May 31**, 19 **59**

OIL OR GAS SANDS OR ZONES
(Denote gas by G)

No. 1, from **5990** to **6030** No. 4, from _____ to _____
No. 2, from _____ to _____ No. 5, from _____ to _____
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from _____ to _____ No. 3, from _____ to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
8 5/8	24	8	J-55	1445	Float				Surface
4 1/2	9.5	8	J-55	6104	Float				5990-6030 Oil string
									1 1/2 shots per foot

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
8 5/8	1453	750	Howco		
4 1/2	6087	850	Howco		

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____
Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from **Surface** feet to **6087** feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

Completed **May 31**, 19 **59** Put to producing **May 30**, 19 **59**

The production for the first 24 hours was **68** barrels of fluid of which **100** % was oil; _____ % emulsion; _____ % water; and _____ % sediment. Gravity, °Bé. **42.8**

If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____
Rock pressure, lbs. per sq. in. _____

EMPLOYEES

R.D. Ryan, Driller **E.E. Foster**, Driller
P.F. Hoffman, Driller **R.C. Sneed**, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	684	684	any gyp TOPS
684	1064	340	any
1064	1711	647	any lime
1711	3217	1506	lime
3217	3307	90	lime & sand
3307	5086	1779	lime
5086	5126	40	dolomite chert
5126	5175	49	lime chert
5175	5474	299	dolomite & chert
5474	5521	47	dolomite chert & lime
5521	5600	79	lime & shale
5600	6047	-cored-	
6047	6087	40	lime

U. S. GEOLOGICAL SURVEY
ARTERIA, NEW MEXICO

NEW YORK 300 200 700 200

Original signed by
J. W. BROWN

STUDY 20 2004 212 400 1143

Flowed 68 BO, no water, 65 MCF gas on 9/64" choke in 24 hrs. GOR 957, TPF-815.

7998-0030 with 2 shots per foot and acidized with 1000 gallons acid. On test well

WELL WAS DRILLED TO 1000 AND CURED TO 600/7 AND DRILLED TO TD OF 6087. Perforated

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or balling.

HISTORY OF OIL OR GAS WELL

U. S. GOVERNMENT PRINTING OFFICE 16-48081-2

39

2. FORMATION OF THE

07211 0007

2024

2017-2018

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2-2356-6776-1

FORMATION

LETTER

FORMATION RECORD—Continued

MALCO REFINERIES "F" NO. 4

Core No. 1: 5600'-5632' Rec 27-1/2'. 5600-5608 Gray micro xln dense dt x a 5608-5618 Gray micro xln x an x dt. Bleeding oil from vuggy porosity. 5618-563- Gray micro xln dense an x dt. No shows 5623-5627-1/2 - Gray micro sln dt. x porosity, bleeding oil.

Core No. 2: 5632-62 Rec 30' 5632-37 gray to lt tan micro sln and dt zones good vuggy porosity. Moderate to highly vertical fracturing trace bleeding oil. 5637-57 Gray micro xln and dt, alternate zones dense to porous slight to moderate fractures porous zones, bleeding oil. 5657-62 Gray micro xln dt x good vuggy porosity highly fractured. Saturated to slight bleeding oil x gas

Core No. 3: 5662-5692 Rec 30' 5662-70, lt tan micro xln an dt Bleeding oil x salty sulphur wtr. moderately fractured. 5670-92 lt tan to gray dense micro xln dt x an Breccia. No shows

Core No. 4: 5692-5744 Rec 20-1/2' 5692-5708 lt tan micro sln dt x dark brown-black micro xln dt inclusions. Highly fractured. Saturated to bleeding oil, no show water. Good vuggy porosity x large to small vugs 5708-5710 Gray light tan micro xln dense dt an Breccia x dark brown micro sln dt inclusions very slight fracturing. no shows. 5710-5712 Same as 5692-to 5708

Core No. 5: 5744-55 Rec 10' light tan micro sln dt x scattered bleeding oil x gas. Good vuggy porosity throughout.

Core No. 6: 5755-5759 Rec 4' 5754-55 Dense dt x an. 5755-56 Dt x good vuggy porosity show oil., 5756-57-1/2 dense dt x sh gray green inclusions. 5757-1/2 - 59 Green shale.

Core No. 7: 5759-5789 Rec 29' 5759-5785 Light tan micro xln an dt x blk x green sh inclusions. Very good vuggy porosity x bugs up to 1 inch. Zone slightly stylitic x moderate fracturing throughout. Saturated to slight bleeding. 5785-5788 Breccia of light tan micro xln dt x an, dark brown dt x traces, dark brown green shale. No shows

Core No. 8: 5789-5802 Rec 13-1/2' 1/2' from Core No. 7 5789-5796-1/2 gray to light tan micro sln x dense an dt x black or dark brown micro sln dt x green shale inclusions No shows or porosity except between 5794-1/2-5794-3/4 x 5793-5793-1/4 which has scattered vuggy porosity x slight bleedings. 5796-1/2 to 5802 light tan micro xln to micro xln an dt. Brown micro xln dt x green sh. inclusions. scattered good vuggy porosity slight fracturing, bleeding oil.

Core No. 9: 5802-5820 Rec 18' 5802-12-1/2 light tan micro sln an dt x green x gray marly dt inclusions. very good to good vuggy x inter xln porosity. slight bleeding to saturated. Moderate to sli fracturing. 5812-1/2 -18 gray to light tan micro xln an dt x gray green marly dt inclusions. Trace small vuggy x pp porosity. sli fracturing very slight ~~vuggy~~ bleeding 5818-20 blk micro xln sh dt x some tan micro xln porous dt. Bleeding to highly fractured.

Core No. 10: 5820-29-1/2 tan micro xln an dt drk brown green marly dt. inclusions. Trace vuggy porosity x sli frac. Trace bleeding oil. 5829-1/2 35 gry lt tan micro xln anydt x good porosity sli frac. bleeding oil 5835-43 same as 5820-29-1/2 5843-5848 - same as 5829-5835 x trace bleeding sulw. 5848-5851 same as 5820-29-5851-69 lt tan micro xln dt x very good vuggy porosity. Large gypxls developed in vugs. Zones rotten x appearance of unconsolidated dt ad. sli frac s bleeding sulw x oil

Core No. 11: 5869-5886 Rec 13 1/2' 5869-73 tan microxln mainly dense anhy dt x zones of pure an. Trace porosity. NS 5873-5882 1/2 tan microxln dt very good to fair vuggy por. sli frac. bleeding sulw x trace oil 5878 1/2-5879 pure an.

Core No. 12: 5886-98 tan to li gry microxln sli anhy dt x very good porosity x frac. bleeding oil x sulw 5898-01 1/2 same as above except good porosity x some oil x sulw bleeding. 5901 1/2-07 same as above except scattered porosity 5907-11 Not rec.

Core No. 13: 5911-22 light tan to tan microxln to mud xln sli anhy dt x some gilsonite Good vuggy pp porosity. sli bleeding oil x wtr. 5922-28 same except scattered green sh partings. Good pp x vuggy porosity, sli bleeding oil x wtr. 5928-34 not rec.

Core No. 14: 5934-5958 Rec 19' 5934-53 li tan gry microxln dt x some scattered gilsonite x fossil debris. Good pp vuggy porosity x frac. Good to fair bleeding o x g. 5953-58 No rec.

Core No. 15: 5958-76 Tan to li tan microxln dt x gilsonite good pp vuggy porosity x frac. good bleedng oil x gas thruout 5976-78 Tan gry microxln x anhy dt. fair to poor porosity x frac. fair bleeding.

Core No. 16: 5978-84 li tan to tan microxln sli anhy dt. fair pp to vuggy por. sli frac bleeding o x g x sulw. 5984-6004 same except some good size vuggy por. x gilsonite deposits 5989-95.

Core No. 17: 6004-17 li tan to tan microxln sli anhy dt with scat gilsonite. good pp vuggy por. x good vert. frac. bleeding o x g x sulw. 6017-28 li tan to tan microxln anhy d t x scat gilsonite x selenite. good vert frac. pp to small vuggy por. bleeding o x g s sulw.

Core No. 18: 6028-35 gry to li tan anhy x microxln dt anhy sli bleeding o x x gilsonite deposits. 6035-48

Core No. 11 5600'-5630' Rec 27-1-78 5600-5605 Gray silty clay with thin bedded
5605-5610 Gray silty clay with thin bedded
5610-5615 Gray silty clay with thin bedded
5615-5620 Gray silty clay with thin bedded
5620-5625 Gray silty clay with thin bedded
5625-5630 Gray silty clay with thin bedded

[illegible]

Source No. 3, 5662-5682 Rec 307, 5662-5682. It was where it was at bleeding off x
relatively sulphur with moderately fractured. 5670-92 it can be very dense where the
to an area. No there

[illegible]

Cover No. 57: 5744-55 Box 101 Light tank where air it scattered throughout all

Cone No. 6, 9755-5755 feet at 9755-5755 feet
partially show oil., 5755-57-1/2 hence it x sh gray green inclinations. 5757-1/2 -
Green shale.

788-5788 Broccoli of light tan micro rim at x an, dark brown at x places, dark brown slightly opalescent x moderate freckling throughout. Separated to slight bleeding. x greenish inclusion. Very good variety possibly x same as to I inch. Long
788-5789 No shows green shade.

Gone No. 8: 7589-5802 Rec 1A-1/2; 1/2' True Gore No. 1 5789-5795-1/2
tan micro silt x dense ss th x black or dark brown micro silt th x green shale incline
No shows on porosity except between 5794-1/2-5796-3/4 x 5793-5795-1/4 which has
scattered waxy porosity x slight bleedings. 5795-1/2 to 5802 light tan micro silt to
micro silt and th Brown micro silt th x green sh. inclinations. scattered good waxy
porosity slight fracturing. bleed off.

very slight ~~xxxxxxxxxxxx~~ bleeding 5819-19 the micro xln as th x some tan above xln
corona th. Bleeding to highly fractured.

[illegible]

Core No. 11: 5887-5888 No. 12: 5889-5890
Core No. 13: 5891-5892 No. 14: 5893-5894
Core No. 15: 5895-5896 No. 16: 5897-5898
Core No. 17: 5899-5900 No. 18: 5901-5902
Core No. 19: 5903-5904 No. 20: 5905-5906
Core No. 21: 5907-5908 No. 22: 5909-5910
Core No. 23: 5911-5912 No. 24: 5913-5914
Core No. 25: 5915-5916 No. 26: 5917-5918
Core No. 27: 5919-5920 No. 28: 5921-5922
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Core No. 33: 5931-5932 No. 34: 5933-5934
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Core No. 63: 5991-5992 No. 64: 5993-5994
Core No. 65: 5995-5996 No. 66: 5997-5998
Core No. 67: 5999-6000 No. 68: 6001-6002
Core No. 69: 6003-6004 No. 70: 6005-6006
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Core No. 221: 6307-6308 No. 222: 6309-6310
Core No. 223: 6311-6312 No. 224: 6313-6314
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Core No. 227: 6319-6320 No. 228: 6321-6322
Core No. 229: 6323-6324 No. 230: 6325-6326
Core No. 231: 6327-6328 No. 232: 6329-6330
Core No. 233: 6331-6332 No. 234: 6333-6334
Core No. 235: 6335-6336 No. 236: 6337-6338
Core No

[illegible]

Core No. 17: 9911-32 light tan to tan micaceous to mud kin silty sh x some claystone
Good vuggy porosity. All blebbing off x wtr. 9928-32 same except occasional green
sh partings. Good no x vuggy porosity. All blebbing off x wtr. 9928-32 red sand.

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