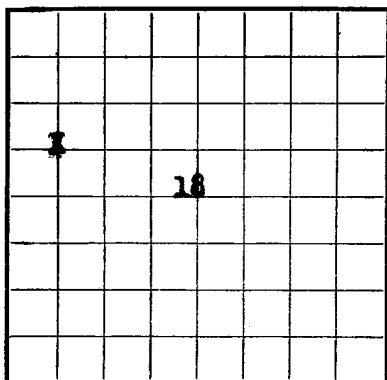
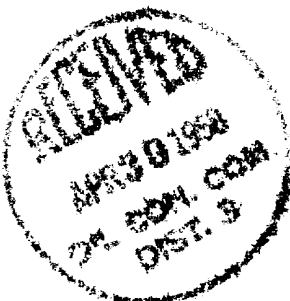


U. S. LAND OFFICE Santa Fe, N. M.SERIAL NUMBER 14-20-603-1284

LEASE OR PERMIT TO PROSPECT _____



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Shell Oil Company Address 101 S. Behrend, Farmington, New Mexico
Lessor or Tract Allotted - Carson Unit Field Bisti State New Mexico
Well No. 12-18 Sec. 18 T. 25N R. 11W Meridian N.M.P.M. County San Juan
Location 2080 ft. N of N Line and 660 ft. E of W Line of Sec. 18 Elevation 6377 KB
(Derrik 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.

Signed _____

Original signed by
R. W. SHEPARDDate April 7, 1958Title Exploitation Engineer

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

Commenced drilling March 11, 1958. Finished drilling March 18, 1958.

OIL OR GAS SANDS OR ZONES

(gross)

(Denote gas by G)

No. 1, from 4880 to 4988 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—	
<u>8 5/8"</u>	<u>21.4</u>	<u>8</u>	<u>Nat'l.</u>	<u>93</u>	<u>Baker</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>Surface</u>
<u>4 1/2"</u>	<u>9.5</u>	<u>8</u>	<u>Nat'l.</u>	<u>500</u>	<u>Baker</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>Production</u>
History of oil or gas well									

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>8 5/8"</u>	<u>103</u>	<u>100</u>	<u>Displacement</u>	<u>---</u>	<u>---</u>
<u>4 1/2"</u>	<u>5018</u>	<u>150</u>	<u>Displacement</u>	<u>---</u>	<u>---</u>

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 0 feet to 5020 feet, and from _____ feet to _____ feet
Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

April 7, 1958 Put to producing March 31, 1958

The production for the first 24 hours was 270 barrels of fluid of which 99.9 % was oil; _____ % emulsion; _____ % water; and 0.1 % sediment. Gravity, 26 approx. 39° API

If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. _____

EMPLOYEES Brinkerhoff Drilling Co.C. C. Adams, Driller W. F. Black, DrillerE. Babcock, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
<u>1191</u>	<u>1405</u>	<u>214</u>	<u>Pictured Cliffs</u>
<u>1405</u>	<u>1570</u>	<u>165</u>	<u>Lewis</u>
<u>1570</u>	<u>2037</u>	<u>467</u>	<u>Cliff House</u>
<u>2037</u>	<u>3707</u>	<u>1670</u>	<u>Allison-Menefee</u>
<u>3707</u>	<u>3874</u>	<u>167</u>	<u>Point Lookout</u>
<u>3874</u>	<u>4777</u>	<u>903</u>	<u>Mances</u>
<u>4777</u>	<u>---</u>	<u>---</u>	<u>Gallup</u>

FORM 9-380

LOG

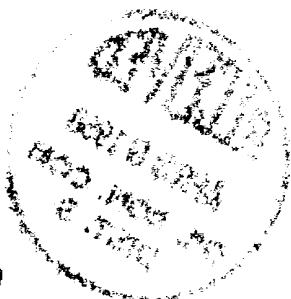
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(OVER)

GEOLOGICAL SURVEY

16-43094-4

FORMATION RECORD—CONTINUED



1.3521 at 57.0 and 55.143
10.48 at 55.094

U.S. LAND OFFICE - BOSTON
SERIAL NUMBER 15-301-101-1

UNITED STATES

DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

VITRABLOC™ (PMMA) 1

[illegible]

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.

Shaped _____
Dated _____
at _____

Elevation _____
of _____ line of _____
_____ feet below surface of _____

79th No. _____ Sec. 16 T. 48 N. R. 10 E. Meridian
_____ Co., Minn.
Lessor or Trust Agent - _____
Field _____ State _____
Company _____
Address _____

[illegible][illegible]

IMPORTANT WATER SAVING

θ^1	$(\cos^2 \theta, \sin^2 \theta)$	θ^1	$(\cos^2 \theta, \sin^2 \theta)$
θ^2	$(\cos^2 \theta, \sin^2 \theta)$	θ^2	$(\cos^2 \theta, \sin^2 \theta)$

294035 7/12/0

ATTACHED:
DITLING HISTORY

9-8-60
BIRMINGHAM

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 them, and if any casing was "blacked", 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 bailing.

HISTORY OF OIL OR GAS WELL

16-48094-2 U. S. GOVERNMENT PRINTING OFFICE

FORMATION RECORD				SHOOTING RECORD				MUDDING AND CEMENTING RECORD					
FROM-	TO-	TOTAL FEET	FORMATION	Shot used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out	Number sacks of cement	Method used	Method used	Amount of mud used
11.11	11.00	1.11	11.11										
11.02	10.90	1.12	11.02										
11.01	10.90	1.11	11.01										
10.97	10.85	1.12	10.97										
10.93	10.80	1.13	10.93										
10.90	10.75	1.15	10.90										
10.87	10.70	1.17	10.87										
10.84	10.65	1.19	10.84										
10.81	10.60	1.21	10.81										
10.78	10.55	1.23	10.78										
10.75	10.50	1.25	10.75										
10.72	10.45	1.27	10.72										
10.69	10.40	1.29	10.69										
10.66	10.35	1.31	10.66										
10.63	10.30	1.33	10.63										
10.60	10.25	1.35	10.60										
10.57	10.20	1.37	10.57										
10.54	10.15	1.39	10.54										
10.51	10.10	1.41	10.51										
10.48	10.05	1.43	10.48										
10.45	10.00	1.45	10.45										
10.42	9.95	1.47	10.42										
10.39	9.90	1.49	10.39										
10.36	9.85	1.51	10.36										
10.33	9.80	1.53	10.33										
10.30	9.75	1.55	10.30										
10.27	9.70	1.57	10.27										
10.24	9.65	1.59	10.24										
10.21	9.60	1.61	10.21										
10.18	9.55	1.63	10.18										
10.15	9.50	1.65	10.15										
10.12	9.45	1.67	10.12										
10.09	9.40	1.69	10.09										
10.06	9.35	1.71	10.06										
10.03	9.30	1.73	10.03										
10.00	9.25	1.75	10.00										
9.97	9.20	1.77	9.97										
9.94	9.15	1.79	9.94										
9.91	9.10	1.81	9.91										
9.88	9.05	1.83	9.88										
9.85	9.00	1.85	9.85										
9.82	8.95	1.87	9.82										
9.79	8.90	1.89	9.79										
9.76	8.85	1.91	9.76										
9.73	8.80	1.93	9.73										
9.70	8.75	1.95	9.70										
9.67	8.70	1.97	9.67										
9.64	8.65	1.99	9.64										
9.61	8.60	2.01	9.61										
9.58	8.55	2.03	9.58										
9.55	8.50	2.05	9.55										
9.52	8.45	2.07	9.52										
9.49	8.40	2.09	9.49										
9.46	8.35	2.11	9.46										
9.43	8.30	2.13	9.43										
9.40	8.25	2.15	9.40										
9.37	8.20	2.17	9.37										
9.34	8.15	2.19	9.34										
9.31	8.10	2.21	9.31										
9.28	8.05	2.23	9.28										
9.25	8.00	2.25	9.25										
9.22	7.95	2.27	9.22										
9.19	7.90	2.29	9.19										
9.16	7.85	2.31	9.16										
9.13	7.80	2.33	9.13										
9.10	7.75	2.35	9.10										
9.07	7.70	2.37	9.07										
9.04	7.65	2.39	9.04										
9.01	7.60	2.41	9.01										
8.98	7.55	2.43	8.98										
8.95	7.50	2.45	8.95										
8.92	7.45	2.47	8.92										
8.89	7.40	2.49	8.89										
8.86	7.35	2.51	8.86										
8.83	7.30	2.53	8.83										
8.80	7.25	2.55	8.80										
8.77	7.20	2.57	8.77										
8.74	7.15	2.59	8.74										
8.71	7.10	2.61	8.71										
8.68	7.05	2.63	8.68										
8.65	7.00	2.65	8.65										
8.62	6.95	2.67	8.62										
8.59	6.90	2.69	8.59										
8.56	6.85	2.71	8.56										
8.53	6.80	2.73	8.53										
8.50	6.75	2.75	8.50										
8.47	6.70	2.77	8.47										
8.44	6.65	2.79	8.44										
8.41	6.60	2.81	8.41										
8.38	6.55	2.83	8.38										
8.35	6.50	2.85	8.35										
8.32	6.45	2.87	8.32										
8.29	6.40	2.89	8.29										
8.26	6.35	2.91	8.26										
8.23	6.30	2.93	8.23										
8.20	6.25	2.95	8.20										
8.17	6.20	2.97	8.17										
8.14	6.15	2.99	8.14										
8.11	6.10	3.01	8.11										
8.08	6.05	3.03	8.08										
8.05	6.00	3.05	8.05										
8.02	5.95	3.07	8.02										
7.99	5.90	3.09	7.99										
7.96	5.85	3.11	7.96										
7.93	5.80	3.13	7.93										
7.90	5.75	3.15	7.90										
7.87	5.70	3.17	7.87										
7.84	5.65	3.19	7.84										
7.81	5.60	3.21	7.81										
7.78	5.55	3.23	7.78										
7.75	5.50	3.25	7.75										
7.72	5.45	3.27	7.72										
7.69	5.40	3.29	7.69										
7.66	5.35	3.31	7.66										
7.63	5.30	3.33	7.63										
7.60	5.25	3.35	7.60										
7.57	5.20	3.37	7.57										
7.54	5.15	3.39	7.54										
7.51	5.10	3.41	7.51										
7.48	5.05	3.43	7.48										
7.45	5.00	3.45	7.45										
7.42	4.95	3.47	7.42										
7.39	4.90	3.49	7.39										
7.36	4.85	3.51	7.36										
7.33	4.80	3.53	7.33										
7.30	4.75	3.55	7.30										
7.27	4.70	3.57	7.27										
7.24	4.65	3.59	7.24										
7.21	4.60	3.61	7.21										
7.18	4.55	3.63	7.18										
7.15	4.50	3.65	7.15										
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7.03	4.30	3.73	7.03										
7.00	4.25	3.75	7.00										
6.97	4.20	3.77	6.97										
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6.91	4.10	3.81	6.91										
6.88	4.05	3.83	6.88										
6.85	4.00	3.85	6.85										
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6.76	3.85	3.91	6.76										
6.73	3.80	3.93	6.73										
6.70	3.75	3.95	6.70										
6.67	3.70	3.97	6.67										
6.64	3.65	3.99	6.64										
6.61	3.60	4.01	6.61										
6.58	3.55	4.03	6.58										
6.55	3.50	4.05	6.55										
6.52	3.45	4.07	6.52										

SHELL OIL COMPANY

Carson Unit
WELL NO. 12-18

Bisti

DRILLING REPORT

FOR PERIOD ENDING

(FIELD)
San Juan, New Mexico
(COUNTY)

3-18-58

18
(SECTION OR LEASE)
T 25 N, R 11 W
(TOWNSHIP OR RANGE)

DAY	DEPTHS		REMARKS
	FROM	TO	
3-11 to 3-12	0	2030	<u>Location:</u> 2080' S and 660' E of NW Corner, Section 18, T25N, R11W, NMPM, San Juan County, New Mexico. <u>Elevations:</u> DF 6376.0, GR 6368.0, KB 6377.2 Spudded 3:30 P.M. 3-11-58. Ran and cemented (93') 8-5/8", 24#, J-55, Nat'l. casing at 103' with 100 sacks cement treated with 2% calcium chloride. Good returns to surface. Flanged up and waited on cement. Pressure tested casing and BOP with 700 psi, OK.
3-13 to 3-17	2030	5020	<u>Drilled 2990'.</u>
3-18	5020	TD	Ran Electrical Survey and Microlog, Ran and cemented (5008') 4-1/2", 9.5# casing at 5018' with 150 sacks cement treated with 4% gel, final pressure 1800 psi. Displaced with oil. Released rig 3:00 P.M. 3-18-58. Mud Summary Wt. 9.3 - 9.8 #/gal. Vis. 39-95 sec. WL 5.5 - 10 cc FC 2/32" Contractor: Brinkerhoff Drilling Co. Drillers: C. C. Adams E. Babcock W. F. Black

CONDITION AT BEGINNING OF PERIOD			
HOLE		CASING SIZE	DEPTH SET
SIZE	FROM TO		
DRILL PIPE SIZES			

R.D. ALLEN

SHELL OIL COMPANY

Carson Unit
12-18
WELL NO.DRILLING REPORT
FOR PERIOD ENDING

Bisti

(FIELD)

San Juan, New Mexico

(COUNTY)

4-1-58

18

(SECTION OR LEASE)

T25N, R11W

(TOWNSHIP OR RANGE)

DAY	DEPTH		REMARKS
	FROM	TO	
3-25	5020	TD	Ran Gamma Ray - collar log. Bullet perforated four 1/2" holes/ft. 4880-4898, 4904-4918, 4947-4954, 4960-4974, 4978-4988. Ran tubing to 4988'.
3-26			Spotted 200 gal. mud acid on perforations. <u>Sand Oil Fracture Treatment #1</u> . Broke down formation at 1800 psi. Injected 15,000 gal. crude oil with 1#/gal. sand, 60 nylon core balls. Injected 4000 gal. crude with 1#/gal. sand, 30 nylon core balls. Injected 11,000 gal. crude with 1#/gal. sand, 55 nylon core balls. Injected 3000 gal. crude with 1#/gal. sand, 25 nylon core balls. Flushed and displaced with 160 bbls. crude. Maximum pressure 3400 psi, minimum pressure 2600 psi average rate 36.8 bbls./min.
3-27			Cleaned out frac sand from 4980 to 5015'. Ran tubing to 4877'.
3-28			Swabbed, well started flowing, flowed and recovered all load and frac oil <u>1420 bbls.</u>
4-1			INITIAL PRODUCTION Flowing, 270 B/D gross, 270 B/D clean, 0.1% cut, 18/64" bean, 667 Mcf/D gas, GOR 2470, TP 940. Completed 3-31-58.

CONDITION AT BEGINNING OF PERIOD

HOLE			CASING SIZE	DEPTH SET
SIZE	FROM	TO		
12-1/4"	0	115	8-5/8"	103'
7-7/8"	115	5020	4-1/2"	5108'
DRILL PIPE SIZES			4-1/2"	

E. B. JOHNSTONE

SIGNED