Form 9-330

Budget Bureau No. 42-R355.4.
Approval expires 12-31-60.

Indian Agency
U. S. LAND OFFICE Dulce, New Mexico
SERIAL NUMBER Cont.#149-Tr-#246
LEASE OR PERMIT TO PROSPECT
J. Apache "F"

RECEIVED 1962

RECEIVED JUL 3 1962 OIL CON. COM. DIST. 3

NW-SE-SE
Sec-16,
T25N - R5W.

LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

THIS IS DUO-PARALLEL STRINGS OF 2-7/8" Casing, COMPLETED IN GALLUP AND BASIN DAKOTA SECTIONS.

LOG OF OIL OR GAS WELL

Company Amerada Petroleum Corporation Address Box 1469, Durango, Colorado

Lessor or Tract Federal Gov't. (Apache) Field Basin Dakota State New Mexico

Well No. 9 Sec. 16 T. 25N R. 5W Meridian NMPM County Rio Arriba

Location 1120' ft. {N. / S.} of S Line and 1120 ft. {E. / W.} of E Line of Section 16 Elevation 6757'
(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.

Signed D. F. Furse

Date Title Foreman

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

Commenced drilling 12:15P 4/17, 1962 Finished drilling 5/10/62, 19

OIL OR GAS SANDS OR ZONES

(*Denote gas by G*)

No. 1, from 2914' to 2987' G

No. 2, from 3772' to 3916 G

No. 3, from Above two zones covered W/Cement to F/Parallel String Completion Protected.

No. 4, from 6312'-6384' Gallup Zone-Producing. thru 2-7/8" Tubingless Casing. (Oil

No. 5, from to

No. 6, from 7140'-7200' Graneros Section, Producing gas thru Tubingless Casing

IMPORTANT WATER SANDS

No. 1, from None-Encountered to

No. 2, from to

No. 3, 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 From—	Perforated To—	Purpose
9-5/8"	25.4#	SJ-SW	Armco	205'	Baker TP	None	None		
2-7/8"	6.4#	8 RT	CF&I	7439'	Baker	None	Dakota String (Long)		
2-7/8"	6.4#	8 RT	CF&I	7250'	Baker		Gallup String (Short)		

Baker T-C Collar set at 4051' in Gallup String - See below for cementing.
Pressured both strings of 2-7/8" Casing W/4000# Press. and held OK.

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
9-5/8"	215'	175 & Circ.	Halliburton	9.8	
2-7/8"	7439')				
2-7/8"	7250')	330 Sacks-Both Strings	Hallib.	9.8	Both strings Cmt. together

Baker T-C Cementing Collar set in Short String @ 4051' & Cemented W/325 Sacks Cement.
Tope of Cmt. outside 2-7/8" Csg. [illegible] Top of Cmt. Second stage @ 2000'

PLUGS AND ADAPTERS

Heaving plug—Material None Length Depth set

Adapters—Material Size

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
No Shots - See below for perforating record.						

TOOLS USED

Rotary tools were used from feet to feet, and from 0' feet to 7450' feet TD

Cable tools were used from feet to feet, and from feet to feet

DATES

, 19 Put to producing Testing Gallup Zone, 19

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

If gas well, cu. ft. per 24 hours 6,053 MCF Gallons gasoline per 1,000 cu. ft. of gas Trace & Odor of Dist.

Rock pressure, lbs. per sq. in. 455# Flowing press.

EMPLOYEES

W. H. Daily, Driller Ira Ellis, Driller

H. B. Barker, Driller , Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0'	7450'		Sand and Shale
	7450'		Total Depth

5/7/62 - 7450' TD. Finished Formation hole at 2:15 PM, 5/7/62. Ran Lane-Wells surveys.
5/9/10/62 - Ran and set Parallel strings of 2-7/8" OD Non-Up, 6.4#, SS Casing:
Long String (Dakota) 237 Jts. Set at 7439' W/Baker Float collar @ 7407';
Short String(Gallup) 233 Jts. Set at 7250' W/Baker Float Collar @ 7219';
Cemented by Halliburton W/330 Sacks down both strings, Max. Pr. 1750#, finished at 11AM, 5/10/62.
Set T-C Collar in Short String at 5051' for second stage cementing.
11 Hrs. WOC on first stage, ran temp. survey, found top of cement outside both strings at 5400'.
Opened T-C Baker Collar in short string at 4051' and cemented second stage with 325 sacks cement. Let set WOC and ran B&R temp. survey on second stage and found top of cement outside 2-7/8" casing at 2000', all zones protected.
5/13/ to 5/25/62 - Fishing and drilling out cement in Long string of tubing.
5/25/62 - Schlumberger perforated Gallup Zone (Short String) from 6312'-6384' W/1-Hole/ft. Held 1000# press. on Long string while perforating Gallup Zone. Had no communication, and Perforated Dakota Zone from 7276'-96' & 7318'-38' W/1-Shot per/ft.
5/26/62 - Halliburton Sand-Water treated down 2-7/8" casing through Dakota Perforations from 7276'-96' and 7318-38' W/30000# Sand and 40000 Gals. Water. Avg. Inj. rate 16.2 Bbls/min. Max. press. 5000#, Finish @ 6:51AM. Load Water 1000 Bbls.
5-28-62 - Halliburton Sand-Oil treated down 2-7/8" casing, (Short String) in Gallup Zone, thru Perfs from 6312'-6384' W/25000# Sand and 37400 Gals. 41 Gvty. Oil. Avg. Inj. Rate 12.1 Bbls./min. Max. Treating press. 5400#, overflushed and finish at 10:17 AM, total load oil used 979 bbls.

Cont'd on Back

16—43094-4

FOLD | MARK

FORMATION RECORD—Continued

FORMATION RECORD—Continued

FROM	TO	TOTAL FEET	FORMATION

5-29 to 6-2-62 - Swabbing, flowing and testing, attempting to complete. 145 MCF/Dak. Zone.
6-2-62 - Schlumberger perforated Dakota string, (Long String) in Graneros Zone from 7140' to 7200' W/1-jet shot per ft, for increase in gas flow, & start testing.
6-3-62 - Dakota Zone Gas vol. increased from 145MCF/Daily to 1,112 MCF/Daily after perfs. In Graneros Section.
6-4-62 - Gas vol. 1,381 MCF daily, flowed and test well to June 8, 1962.
6-8-62 - Set Halliburton Retrieveable Retainer at 7210' and Halliburton Sand-water treated Graneros Perfs. from 7140' to 7200' W/55,440 Gals. water and 40,000#, Avg. Inj. rate 13.9 bbls./min. Max. Press. 4850#, Finished 1:30 AM.
6-8 to 6-11, 1962 - Swabbing and testing.
6-11-62 - Well kicked off and started flowing at 5:PM 6/11/62.
12 Hrs. Flowing thru 3/4" postive choke, flowed 500 bbls. frac water in 12 hours, Choke Vol. 6053MCF, AOF-7,230MCF/Daily. Csg. P. 455#. Trace and odor of Distillate.
Gallup Zone flowing load oil at the rate of approx. 1/2 to 1 Bbl, per hr. and testing, flowing 24 Hrs. then closing in 24 hours.
Lack 415 Bbls. load oil on recovery. Still testing.

5-7-62 - D.S.T. #1 - From 7235'-7335' Upper Dakota Zone, Dbl. packers, 2 Hr. Test, 4" DP 3/4" Bottom & 1" Top Chokes, Opened tool at 2:25 AM, had good blow air, gas to surface in 10 Min. Contd. Steady blow throughout test, rate of flow by Measurement was 11,000 Cu.ft./daily.
Recovered 120' of drilling mud, as follows:
30' of moderately gas cut mud, and
90' of slightly oil and moderately gas cut mud.
IHP-3645#, FHP-3575#, IFP-55#, FFP-80#, 1/2 Hr. BHP 1755#, 1-Hr. 2680#
Final press. 2870#.

FINAL LANE-WELLS TOPS

Kirtland-Fruitland	- 2534'	+4236'	Upper Gallup	- 6268'	+502'
Pictured Cliffs	- 2914'	+3856'	Lower Gallup	- 6499'	+271'
Lewis	- 2987'	+3783'	Sanastee	- 6733'	+ 37'
La Ventana "A"	- 3772'	+2998'	Lower Mancos	- 6839'	+ 69'
Base La Ventana "A"	- 3916'	+2854'	Greenhorn	- 7047'	-277'
Allison-Cleary(?)	- 4580'	+2190'	Graneros	- 7130'	-340'
Point Lookout	- 5116	+1654'	Upper Dakota	- 7276'	-506'
Mancos	- 5300'	+1470'	Lower Dakota	- 7368'	-598'

16—43094-2 U. S. GOVERNMENT PRINTING OFFICE

HISTORY OF OIL OR GAS WELL

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 bailing.

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