WELL HISTORY REPORT

GULF-MOBIL CARIBOU YT N-25

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WELL HISTORY REPORT

C O N F I D E N T I A L

GULF-MOBIL CARIBOU YT N-25
N-25-66-20-134-45

66° 14' 46" North Latitude
134° 50' 04" West Longitude

* * *

APPROVED

G. R. Appleton
Co-ordinator Logistics
Production Section - Drilling

GULF OIL CANADA LIMITED
CALGARY ALBERTA
OCTOBER 4, 1974

I N D E X

SECTION VI - COMPLETION SUMMARY

WELL HISTORY REPORT

SECTION I
SUMMARY OF WELL DATA

a)	Well Name and Number	Gulf-Mobil Caribou YT N-25
b)	Name of Permittee, Licencee	Gulf Oil Canada Limited
c)	Name of Operator	Gulf Oil Canada Limited P. O. Box 130 CALGARY, Alberta T2P 2H7
d)	Location	N-25-66-20-134-45
e)	Coordinates	66° 14' 46" North Latitude 134° 50' 04" West Longitude 66.24611° W 134.83444° W Universal W.L.R. 300N256620134450 Unique Well Identifier
f)	Permit Number	5675
g)	Drilling Contractor	Adeco Drilling and Engineering Rig No. 10 Type: Heli-Hoist 2000
h)	Drilling Authority	No. 759 Dated March 28, 1974
i)	Classification	New Field Wildcat
j)	Elevations	Ground: 1600 Ft. K.B.: 1625 Ft.
k)	Spud Date	May 1, 1974
l)	Drilling Completion Date	August 10, 1974
m)	Total Depth	11,812 Ft. P.B.T.D.: 0 Ft.
n)	Well Status	Dry and Abandoned
o)	Rig Released	August 31, 1974

p) Hole Sizes

	Interval (Feet)
30-inch	0 - 90 K.B.
17-1/2	90 - 1,025
12-1/2	1,025 - 5,871
8-1/2	5,871 - 11,812

q) Casing

Conductor 20" OD 94# H-40 Set at 90' KB Net 65'

13-3/8" OD 54.5# 8RT K-55 Class A (26 JTS)
Set at 1,025 KB, Net 1000'

9-5/8" OD 40# 8RT Mod N-80 Class A (146 JTS)
Set at 5,871' KB, Net 5,846'

SECTION II
GEOLOGICAL SUMMARY

a) Formation Tops

	Log Top	Subsea (Feet)
Mississippian	Spud	+ 1,625
Devonian (Imperial)	590	+ 1,035
Canol	4,517 ?	- 2,892
Prongs Creek	5,212	- 3,587
Road River	6,320	- 4,695
Silurian (Ronning Equiv.)	9,220	- 7,595
Cambrian	11,325	- 9,700
Total Depth Logged	11,806	- 10,181
Total Depth Drilled	11,812	- 10,187

695-

b) Cored Intervals

Conventional	Core #1 - 5,881 - 5,941' Prongs Creek Cut 60' Recovered 60'
Sidewall	Nil

c) Core Description

Core #1 - Interval 5881 - 5941' Rate: 21 min/ft.

5881 - 5886	Shale, dark grey to black, fissile, calcareous shale, slightly calcareous, light brown, clay inclusion and stringers. Trace of pyrite, H2S odor with acid.
5886 - 5891	Shale, dark grey to black, calcareous shale, slightly calcareous, light brown. Clay inclusions and stringers, trace micro-calcareous stringers.
5891 - 5896	Shale, dark grey to black, calcareous. Shale, slightly calcareous, light brown. Clay inclusions, H2S odor with acid.
5896 - 5901	Shale, dark grey to black, calcareous. Shale as above, clay inclusions, H2S odor.
5901 - 5906	As above.
5906 - 5911	As above.
5911 - 5916	As above.
5916 - 5921	As above.
5921 - 5926	Shale, dark grey, calcareous shale, slightly calcareous, clay inclusions, H2S odor with acid, trace pyrite.
5926 - 5931	As above.
5931 - 5936	As above.
5936 - 5941	As above

d) Sample Description

Lithologic Summary

The initial 590' of lithology encountered is Mississippian in age. Sandstones predominate with interfingering grey-brown, black and red shales. The sandstone has some poor intergranular porosity.

The Imperial formation of the Devonian age was topped at 590'. This unit consists of variable beds of shales, siltstones and sandstones. No visible porosity was reported.

The Canol formation has been picked at 4517'. The top appears as a black bituminous shale with disseminated pyrite and scattered with calcareous specks. With depth a siliceous quality was encountered.

The Prongs Creek was picked at 5212'. This is primarily a log top but the lithology consists of stringers of bituminous shale with beds of siliceous shale and black chert. With depth the shales become light green-gray, non-siliceous and limey. Limestone streaks and traces of crinoids were also encountered near the base of the Prongs Creek.

The Road River was correlated on logs to be at 6320'. No specific lithologic break appeared. The shale continued to be calcareous and dolomitic, with calcite fragments and veinlets. Scattered interbedded light grey limestone, dolomitic in part, was also encountered.

The Silurian Ronning Carbonate top was placed at 9220'. Lithology at the top is a marlstone-dolomitic and siliceous, with occasional sucrosic texture. With depth the crystallinity becomes microcrystalline to fine crystalline, and the rock type becomes dolomite. Some quartz crystals were encountered to suggest the possible presence of open fractures. Further depth penetration saw the crystalinity increase to coarse. The latter appears as beds interspersed between dense and sucroic units. Towards the base of the Ronning siltstone stringers in the dolomite began to appear and increase in frequency.

The Cambrian was picked at 11,325'. The rock type is primarily a quartzitic siltstone with a dolomitic matrix. Detailed lithologic reports on occasion indicate a suggested schistose appearance. The latter terminology is possibly used whenever the micromicaceous content in the samples increases.

Gulf-Mobil Caribou YT N-25 is bottomed in the Cambrian at F.T.D. 11,812'.

e) Palentological Determinations (Preliminary)

Spud in Lower Mississippian or Upper Devonian

Top of True Upper Devonian	2000'
Top of Middle Devonian	5200'

SECTION III
Engineering Summary

a) Report of Drill Stem Tests

DST. No. 1 — August 20, 1974 - Interval 9890 - 10,350', Silurian, Petco, 7-3/4" dual straddle, 5/8" SS choke 5000' water cushion, 15/60/60/30 Good puff on preflow, decreasing and becoming very weak towards end of test.
Recovery: 1100' slightly gassy mud and 5200' water (cushion)
IHSP 6636 IFP - ISIP - BHT 208°F
FHSP 6066 FFP - FSIP -
Misrun - partial tool plugging.

DST. No. 2 — August 23, 1974 - Interval 9890 - 10,300' Silurian, Petco, 7-3/4" dual straddle, 5'8" SS choke, 5000' water cushion 0/0/75/142 Good Initial Puff - Weak throughout flow period.
Recovery: 100' water and 400' gas cut mud
IHSP 6244 IFP 2125 ISIP -
FHSP 5713 FFP 2263 FSIP 3812 BHT 208°F

DST. No. 3 — August 26, 1974 - Interval 5820 - 5865' Road River, Petco, 9-5/8" hookwall,5/8" SS choke, no cushion 15/60/90/210 Good initial puff, dead in 75 minutes.
Recovery: 90' slightly gas cut drilling mud
IHSP 3629 IFP 27 ISIP 121
FHSP 3377 FFP 43 FSIP 117 BHT 150°F

DST. No. 4 — August 27, 1974 - Interval 4700-4815 Canol, Petco 9-5/8" hookwall, 5/8" SS choke, no cushion 10/62/120/242 Good initial puff, weak steady blow
Recovery: 150' drilling mud
IHSP 2899 IFP 87 ISIP 459
FHSP 2736 FFP 101 FSIP 393 BHT 139°F

DST. No. 5 — August 28, 1974 - Intervals 4530 - 4560, 4610 - 4640. Canol, Petco, 9-5/8" hookwall, 5/8" SS choke, no cushion 5/65/180/300 Good initial puff, moderate air blow throughout flow period
Recovery: 150' drilling mud
IHSP 2719 IFP 91 ISIP 759
FHSP 2518 FFP 109 FSIP 509 BHT 134°F

b) Casing Record

April 29, 1974 Conductor pipe 20" OD 94# 8RT H-40 Set at 90' KB. Cemented with 200 sacks 1:1 cement: calseal, to surface

May 7, 1974 - Ran 26 Jts 13-3/8" OD 54.5# 8RT K-55 ST&C Class A casing. Set at 1025' KB. Ran 14 centralizers. Cemented by Howco with 1400 sacks Class G cement with 2% $CaCl_2$.
Plug down at 12:15 A.M. May 7, 1974. Pumped plug to 982' with 153 barrels of mud. Average slurry weight 15.6#/gal. Average displacement rate 10 bbls/min. Witnessed by Tacholek for contractor and Bowman for Gulf.

May 29, 1974 - Ran 146 Jts 9-5/8" OD 40# 8RT Mod N-80 LT&C Class A casing. Set at 5871' KB. Ran 6 centralizers. Cemented by Howco with 875 sacks neat Class G cement.
Plug down at 7:50 P.M. May 29, 1974. Pumped plug to 5826' with 441 bbls. of mud. Average slurry weight 15.3#/gal. Average displacement rate 7 bbls/min. Witnessed by Tacholek for contractor and Campbell for Gulf.

c) Bit Record

No.	Size	Type	Depth In	Depth Out	Footage	Hours	Cumulative Hours
1	17-1/2	Y11	91	272	181	9-1/4	9.25
2	17-1/2	YT1A	272	409	137	10	19.25
3	17-1/2	T3A	409	533	124	11	30.25
4	17-1/2	Y11	533	589	56	12	42.25
5	17-1/2	D6J	589	948	359	20-1/4	62.50
6	17-1/2	T3A	948	1,025	77	2-1/2	65.00
6RR	17-1/2	T3A		1,025	Clean Out		
7	12-1/4	X3A	1,025	1,487	462	19-1/2	84.50
8	12-1/4	X3A	1,487	2,565	1,078	35	119.50
9	12-1/4	X1G	2,565	3,084	519	29-1/2	149.00
10	12-1/4	J-33	3,084	3,693	555	31-1/2	180.50

No.	Size	Type	Depth In	Depth Out	Footage	Hours	Cumulative Hours
11	12-1/4	XDV	3,693	4,314	675	35-1/4	215.75
12	12-1/4	XDV	4,314	4,626	312	14-1/2	231.25
13	12-1/4	ND7	4,626	4,796	170	12-1/4	243.75
14	12-1/4	XDV	4,796	4,883	87	7-1/2	251.75
15	12-1/4	JD7	4,883	5,091	208	21	272.25
16	12-1/4	JD7	5,091	5,176	85	12-1/2	284.75
17	12-1/4	XDR	5,176	5,259	83	11-1/2	296.25
18	12-1/4	S-88	5,259	5,871	612	34	330.25
19	8-1/2	XDV	5,871	5,881	10	1-1/4	331.50
20	8-15/32	Dia.Core	5,881	5,941	60	21	352.50
21	8-1/2	J-55	5,941	6,103	162	40-3/4	393.25
22	8-1/2	J-33	6,103	7,070	967	118	511.25
23	8-1/2	J-33	7,070	7,859	789	96-3/4	608.00
24	8-1/2	J-33	7,859	8,541	682	72-1/2	680.50
25	8-1/2	J-33	8,541	9,260	719	81-1/4	761.75
26	8-1/2	J-33	9,260	9,299	39	6-1/4	768.00
27	8-1/2	JD7		9,299	Mill	5	773.00
28	8-1/2	J-33	9,299	9,379	80	12-3/4	785.75
29	8-1/2	JD7	9,379	9,383	4	1/2	786.25
30	8-1/2	M88	9,383	9,442	59	12-1/4	798.50
31	8-1/2	J88	9,442	10,062	620	121-1/2	919.75
-		Mill			3	(-)	
32	8-1/2	J88	10,062	10,189	127	21-1/2	941.25
33	8-1/2	J88	Cleaning				
34	8-1/2	JD7	10,189	10,252	63	14-1/2	955.75
19RR	8-1/2	XDV	Clean Out Trip				
35	8-1/2	J-55	10,252	10,736	484	63	1018.75
36	8-1/2	H77S	10,736	10,815	79	16	1034.75
37	8-1/2	XDV	Clean Out To Top of Fish				
38	8-1/2	HTSG	10,815	10,887	72	14-1/4	1049.00
39	8-1/2	J-55	10,887	11,276	389	74-1/4	1123.25
40	8-1/2	J-55	11,276	11,812	536	111	1234.25
37RR	8-1/2	XDV	Cleanout				
41	8-1/2	XDV	Cleanout Trip				
42	8-1/2	XDV	Drill Out Cement				

d) Mud Report

Permafrost Hole 0 - 1025'	Beneficiated Gel System Mud Weight 8.6 - 9.5#/Gal. Viscosity 63-180 Sec/Qt.
Surface Hole 1025' - 5871'	Beneficiated Gel System Mud Weight 8.9 - 11.5#/Gal. Viscosity 45 - 66 Sec/Qt.
Main Hole 5871 - 11,812'	Gel-Lignosulphonate System Mud Weight 10.4 - 12.2#/Gal. Viscosity 45 - 225 Sec/Qt.

Materials Used

Gel	215,000 Lbs.	Kwikseal	2,760 Lbs.
Barites	1,330,900 Lbs.	Walnut	1,500 Lbs.
Benex	1,796 Lbs.	Cellex	5,650 Lbs.
Q-Broxin	6,000 Lbs.	C.M.C.	4,500 Lbs.
Caustic	6,569 Lbs.	Super Lube	3,400 Lbs.
Bicarb	1,900 Lbs.	HME	60 Gals.
Soda Ash	2,550 Lbs.	Poly Plastic	576 Gals.
Sodium Nitrate	10,400 Lbs.		

e) Deviation Record

Depth	Degrees Deviation	Depth	Degrees Deviation
114	1/2	3,566	2-3/4
145	3/4	4,067	2-3/4
186	3/4	4,314	2-3/4
249	3/4	4,625	2
311	1/4	4,796	2
390	2	4,883	2
409	2-1/4	5,091	2
447	2-1/4	5,259	2-1/4
477	2-1/4	5,778	2
533	2-1/4	6,103	4
572	2	6,560	4-3/4
625	2	7,070	3-1/8
720	1	7,870	Misrun
810	1	7,820	2
885	1	8,470	1-3/4
948	3/4	9,250	1-3/4
1,025	1	9,430	1-1/8
1,085	1/4	10,050	Misrun
1,377	2	10,050	1-1/2
1,487	1/2	10,250	2
1,975	3/4	10,736	5-1/4
2,472	1-1/2	10,815	5-1/4
2,565	1- 3/4	10,885	4-3/4
3,053	1-3/4	11,275	3-1/4

f) Abandonment Plugs (See Page 13).

g) Lost Circulation Zones

Lost 300 Bbls. of mud in Prongs Creek at 5871' while handling kick. Added 59 sacks of Kwikseal and 30 sacks of walnut to cure.

Lost an additional 240 bbls. of mud at 5871 (?) while running and circulating Intermediate casing. Added 10 sacks of kwikseal.

h) Well Kicks and Blowouts

No blowouts occurred. A kick was reported at 5871' and was handled by raising mud weight from 9.7 - 11.5#/gal.

SECTION IV
LOGS

Logs

Date	Run No.	Interval (Ft)	Type
May 6, 1974	1	88 - 1,018	Dual Induction Laterolog
May 6, 1974	1	88 - 1,015	BHC Sonic Log
May 6, 1974	1	88 - 1,023	4-Arm Caliper
May 27, 1974	2	1,025 - 5,850	Dual Induction Laterolog
May 27, 1974	1	1,025 - 5,850	CN Formation Density Log
May 27, 1974	2	1,025 - 5,838	BHC Sonic Log
May 27, 1974	1	1,025 - 5,835	Continuous Dipmeter
May 27, 1974	1	1,028 - 5,830	Synergetic
July 25, 1974	3	5,858 - 10,728	Dual Induction Laterolog
July 25, 1974	3	8,900 - 10,807	BHC Sonic Log
August 14, 1974	2	9,000 - 11,808	CN Formation Density Log
August 14, 1974	4	5,858 - 11,808	BHC Sonic Log
August 14, 1974	4	10,783 - 11,803	Dual Induction Laterolog
August 14, 1974	2	5,858 - 11,806	Continuous Dipmeter

SECTION V

ANALYSES

a) Core Analysis — Nil

b) Water Analysis (Mud) — E74-3642, E47-3643, E74-3406, E74 3407, E74-3408

c) Gas Analysis — Nil

d) Oil Analysis — Nil

SECTION VI

COMPLETION SUMMARY

a) Tubing Record - Nil

b) Perforation Record

August 26, 1974, 5830 - 5865', 9-5/8" casing w/2 Hyper jet shots/ft. with 4" casing gun for DST #3.

August 27, 1974, 4730 - 4760 & 4800 - 4815', 9-5/8" casing w/2 HJS/ft. with 4" casing gun for DST #4.

August 27, 1974, 4610 - 4640' & 4530 - 4560', 9-5/8" csg. w/2 HJS/ft. with 4" casing gun, for DST #5.

c) Cementation Record

Plug No.	Date	Position	Formation	Sacks Cement	% Additives	Plugs Felt At(Ft)
1	21- 8-74	11,812 - 11,600	Cambrian	855	.2 HR4	-
2	21- 8-74	10,500 - 10,300	Silurian	130	.2 HR4	10,300
3	24- 8-74	10,300 - 9,634	Silurian	275	.2 HR4	9,634
4	29- 8-74	4,515 - 4,350	9-5/8" csg	75	-	-
5	30- 8-74	605 - 125	9-5/8-13 3/8 csg. anl.	175 Squeezed	2.5 CaCl	-
6	31- 8-74	58- 0'	Top 9-5/8" csg.	25	-	-

Cut Off 9-5/8" casing, welded plate on top of casing. Installed well sign.

d) Acidization and Fracturing Record - Nil

e) Back Pressure and Production Tests - Nil

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

14240-115 AVENUE, EDMONTON, ALBERTA T5M 3B7

DATE REPORTED: September 27, 1974 LABORATORY REPORT NUMBER: ED74-3642

GULF OIL CANADA LIMITED

WELL: Gulf Mobil Caribou N-25

SAMPLE LOCATION: 66.24611°N,134.83444°W

POINT OF SAMPLE: Top Of Tool

FIELD OR AREA: Caribou

POOL OR ZONE: Tight Hole

KIND OF SAMPLE: Water

TEST TYPE & No.: DST 1

TEST INTERVAL OR PERFS: 9890'-10340'

DATE SAMPLED: August 20, 1974

DATE RECEIVED: September 23, 1974

DATE ANALYZED: September 26, 1974

ANALYST: R. J. Maloney

SAMPLED BY: Johnston Testers

TEST RECOVERY: 6300' (5200' Warm Cushion, 1100 Slightly Gassy Mud.

AMT. & TYPE OF CUSHION: 5200' of Water

CHLORIDE: 496 Mg/l

RESISTIVITY: 1.11 OHM/meters @ 77°F

The sample consisted of mud

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

14240-115 AVENUE, EDMONTON, ALBERTA T5M 3B7

DATE REPORTED: September 27, 1974 LABORATORY REPORT NUMBER: E74-3643

GULF OIL CANADA LIMITED

WELL: Gulf Mobil Caribou N-25

SAMPLE LOCATION: 66.24611°N,134.83444°W

POINT OF SAMPLE: Middle of fluid recovery

FIELD OR AREA: Caribou

POOL OR ZONE: Ronning

KIND OF SAMPLE: Water

TEST TYPE & No.: DST 2

TEST INERVAL OR PERFS: 9890'-10300'

DATE SAMPLED: August 23, 1974

DATE RECEIVED: September 23, 1974

DATE ANALYZED: September 26, 1974

ANALYST: R. J. Maloney

SAMPLED BY: Johnston Testers

TEST RECOVERY: 5100' of water, 400' of mud

AMT. & TYPE OF CUSHION: 5200' of Water

E74-3643-1: SAMPLED FROM TOP OF FLUID

CHLORIDE: 50 Mg/l

RESISTIVITY: 14.83 OHM/meters @ 77°F.

Clear water with a thin layer of sediment.

E74-3643-2: SAMPLED FROM MIDDLE:

CHLORIDE: 13 Mg/l

RESISITIVITY: 79.76 OHM/meters @ 77°F

Clear water with a thin layer of sediment.

E74-3643-3: SAMPLED FROM BOTTOM

CHLORIDE: 1783 Mg/l

RESISTIVITY: 0.746 OHM/meters @ 77°F.

The sample consisted of mud.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

14240-115 AVENUE, EDMONTON, ALBERTA T5M 3B7

DATE REPORTED: September 12, 1974. LABORATORY REPORT NUMBER: E74-3406

GULF OIL CANADA LIMITED

KIND OF SAMPLE:	WATER	WELL:	GULF MOBIL CARIBOU N-25
SAMPLE LOCATION:	66.24611°N,134.83444°W	TEST TYPE & NO.:	D.S.T. #3
TEST RECOVERY:	90 FEET MUD	POINT OF SAMPLE:	TOP OF TOOL
TEST INTERVAL:	5820'-5865'	DATE SAMPLED:	AUGUST 26, 1974.
DATE RECEIVED:	SEPTEMBER 9, 1974.	DATE ANALYZED:	SEPTEMBER 12, 1974.
ANALYST:	R.J. MALONEY		

FIELD SAMPLE #3

CHLORIDE:	540 Mg/1
RESISTIVITY:	0.656 OHM/meters @77°F

THE SAMPLE CONSISTED OF MUD WITH A BROWN FILTRATE.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

14240-115 AVENUE, EDMONTON, ALBERTA T5M 3B7

DATE REPORTED: SEPTEMBER 12, 1974. LABORATORY REPORT NUMBER: E74-3407

GULF OIL CANADA LIMITED

KIND OF SAMPLE: WATER WELL: GULF MOBIL CARIBOU N-25

SAMPLE LOCATION: 66.24611°N-134.83444°W COMPANY: JOHNSTON TESTERS

TEST TYPE & NO.: D.S.T. #4 TEST RECOVERY: 150 FEET MUD

TEST INTERVAL: 4700'-4750' POINT OF SAMPLE: TOP OF TOOL

DATE SAMPLED: AUGUST 26, 1974. DATE RECEIVED: SEPTEMBER 9, 1974.

ANALYST: R.J. MALONEY

FIELD SAMPLE #4

CHLORIDE: 520 Mg/l

RESISTIVITY: 0.666 OHM/meters @77°F

THE SAMPLE CONSISTED OF MUD WITH A BROWN FILTRATE.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

14240-115 AVENUE, EDMONTON, ALBERTA T5M 3B7

DATE REPORTED: SEPTEMBER 12, 1974. LABORATORY REPORT NUMBER: E74-3408

GULF OIL CANADA LIMITED

KIND OF SAMPLE: WATER

WELL: GULF MOBIL CARIBOU N-25

SAMPLE LOCATION: 66.24611°N-134.83444°W

COMPANY: JOHNSTON TESTERS

TEST TYPE & NO.: D.S.T. #5

TEST RECOVERY: 150 FEET MUD

TEST INTERVAL: 4530'-4560' 4610'-4640'

DATE SAMPLED: AUGUST 28, 1974.

DATE RECEIVED: SEPTEMBER 10, 1974.

DATE ANALYZED: SEPTEMBER 12, 1974.

ANALYST: J.R. MALONEY

	RESISTIVITY OHM/meters @77°F	CHLORIDE (mg/l)
LABORATORY NUMBER E74-3408-1		
90 FEET ABOVE TOOL	0.607	---
LABORATORY NUMBER E74-3408-2		
TOP TOOL	0.689	619

THE SAMPLES CONSISTED OF MUD WITH A BROWN FILTRATE.

GULF MOBIL CARIBOU

YTN25

DST NO. 1

PETCO SERVICES (1973) LTD.
DRILL-STEM TEST DATA

P.O. BOX 6793, STN. D
CALGARY, ALBERTA
Bus. 403 - 269-8291

Well Name	GULF MOBIL CARIBOU	Test No.	1
Well Number	YTN25	Zone Tested	WILDCAT
Company	GULF OIL CANADA LTD.	Interval	9890 - 10350
Comp. Rep.	G. MITCHELL	Tester C. ADAMS	Date AUGUST 20, 1974

Type of Test DUAL STRADDLE RFS Tool No.

Preflow 15 mins. ISI 60 mins. Flow 60 mins. FSI 30 mins.

	REC. No. 2089 7250 RANGE 24 HR. CLOCK	REC. No. 4366 7250 RANGE 24 HR. CLOCK	REC. No. 1847 10000 RANGE 24 HR. CLOCK
DEPTH	9900/	9905	10360
Initial Hydro Mud Press	6636	6586	6929
Initial Shut-In Press			
Initial Flow Press			
Final Flow Press			
Final Shut-In Press			
Final Hydro Mud Press	6066	6045	6283

TYPE
Mud ~~XX~~ GEL
Viscosity 75
Top Packer Depth 9890
Drill Pipe Size 4.5 XH
Surface Choke Size N/A
Anchor Size N/A
Cushion Amount 5000

Fluid Loss 5
Temperature °F 208
Bottom Packer Depth 10350
Wt. 16.6 Drill Collar I.D. 2.750
Bottom Choke Size 0.625
Rat Hole Size 8.5
Type WATER

Mud Weight N/A
Net Pay Tested N/A
Total Depth 11812
Ft. Run 450
Main Hole Size 9.625
Feet of Rat Hole N/A
Rubber Size 7.750

Fluid Recovery Total Feet 6300
Recovered 1100 Feet of SLIGHTLY GASSY MUD
Recovered 5200 Feet of WATER
Recovered Feet of
Recovered Feet of
Recovered Feet of

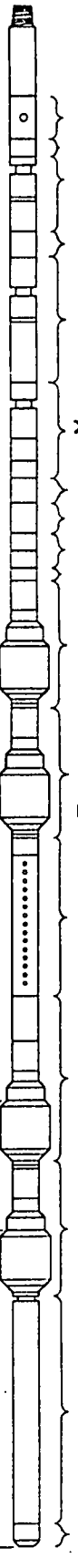
Gas Recovery How Measured Riser size:

mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day

Bleed Off Time for Drill Pipe

REMARKS: GOOD INITIAL PUFF ON PREFLOW. DECREASING AND BECOMING VERY WEAK TOWARDS END OF TEST. NO SIGN OF GAS TO SURFACE.

A Core Lab Gas Cont. No. Chem - Geo. Lab Gas Cont. No.



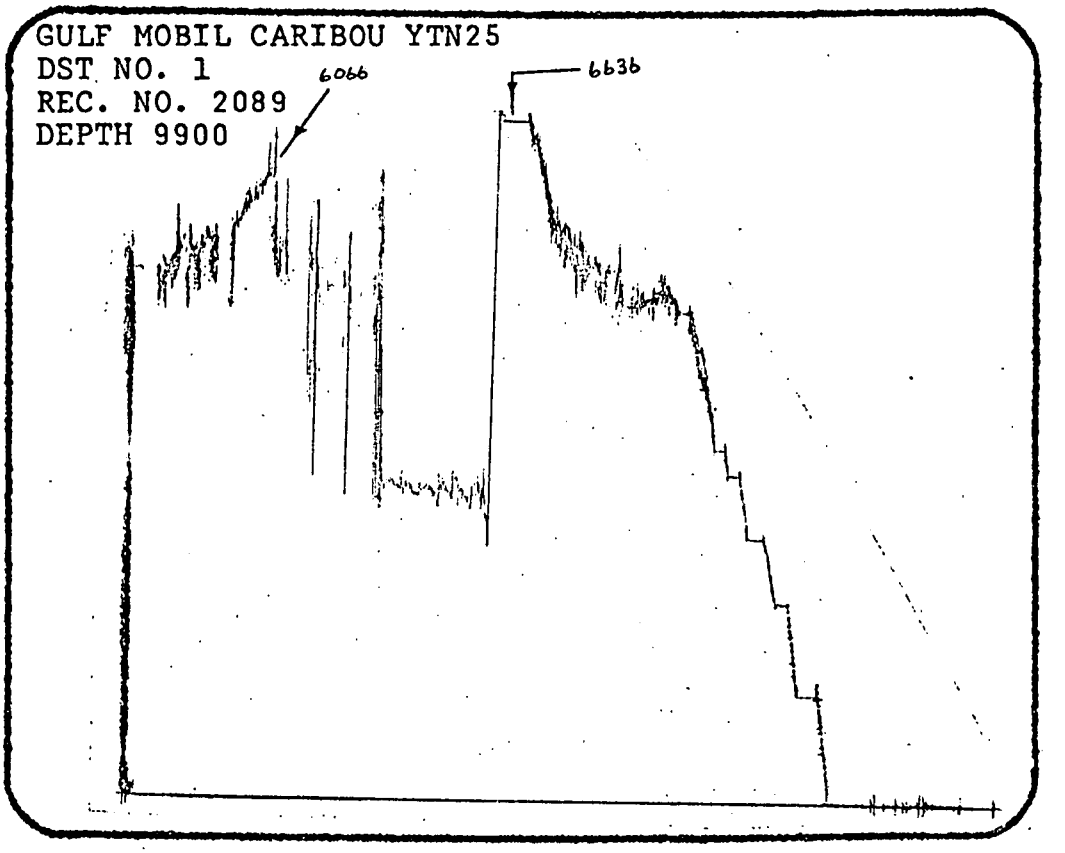
	P.O. SUB.		.95
	XO. SUB		.90
	SHUT IN TOOL		
	R.P.S. No.		
	HYDRAULIC TOOL		
	~~JARS~~	X.O.S.	1.00
	~~RECORDER No.~~	D.C.	270.00 DEPTH
	~~RECORDER No.~~	M.F.E.	8.40 DEPTH
	BYPASS SUB.		3.10
	SAFETY JOINT		1.85
1. PACKER DEPTH	PACKER	SEAL	8.45
	PACKER		5.25 TOTAL TOOL ABOVE INTERVAL 29.90
2. PACKER DEPTH	ANCHOR — STUB.		1.00
	PERF.		10.00
	BLANK OFF OR BY PASS SUB		
	RECORDER No.		4.50 DEPTH
	RECORDER No.		5.50 DEPTH
	X.O. SUB.		1.00
	D.P. ☒ D.C. ☐		423.59
	X.O. SUB		1.05
3. PACKER DEPTH	PACKER		3.10 TOTAL INTERVAL 26.15
4. PACKER DEPTH	PACKER		9.00
		STUB	1.00
	ANCHOR — PERF.		13.00
	RECORDER No.		DEPTH
	X.O. SUB.		.90
	D.P. ☒ D.C. ☐		1442.00
	X.O. SUB.		
TOTAL DEPTH	BULLNOSE		

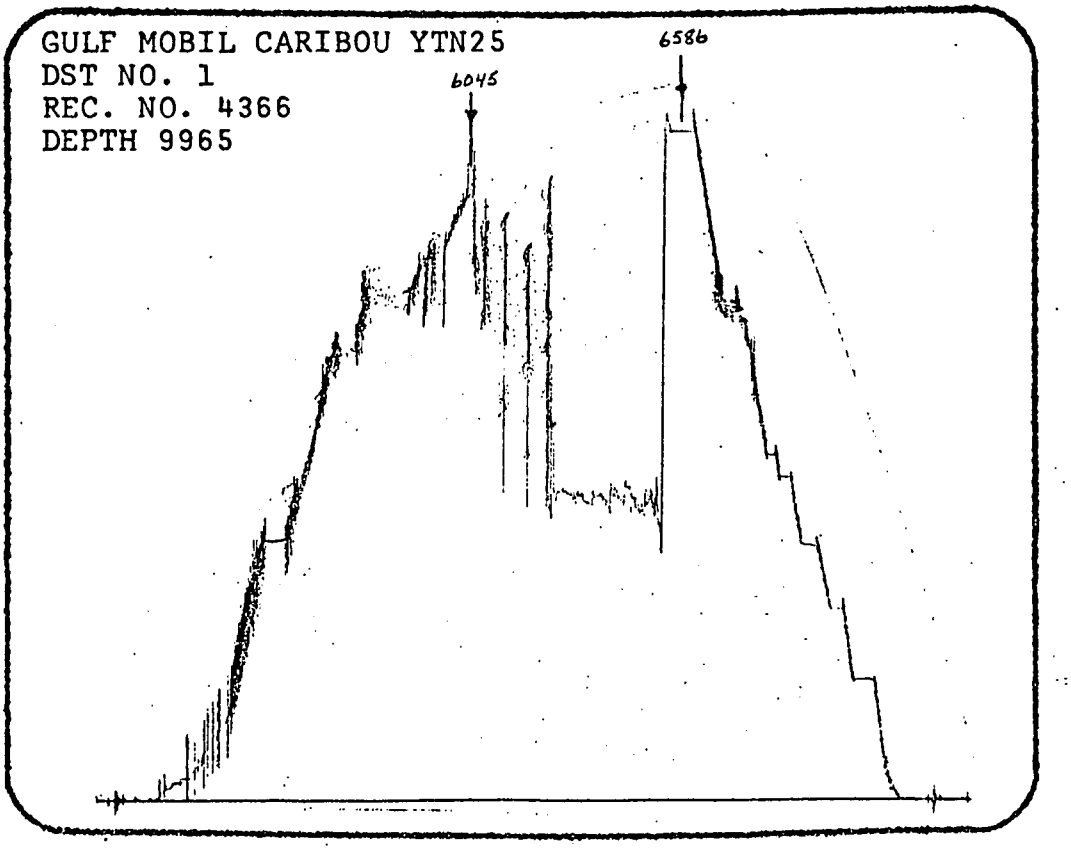
TOTAL TAIL PIPE 23.90

TOTAL TEST TOOL 79.95

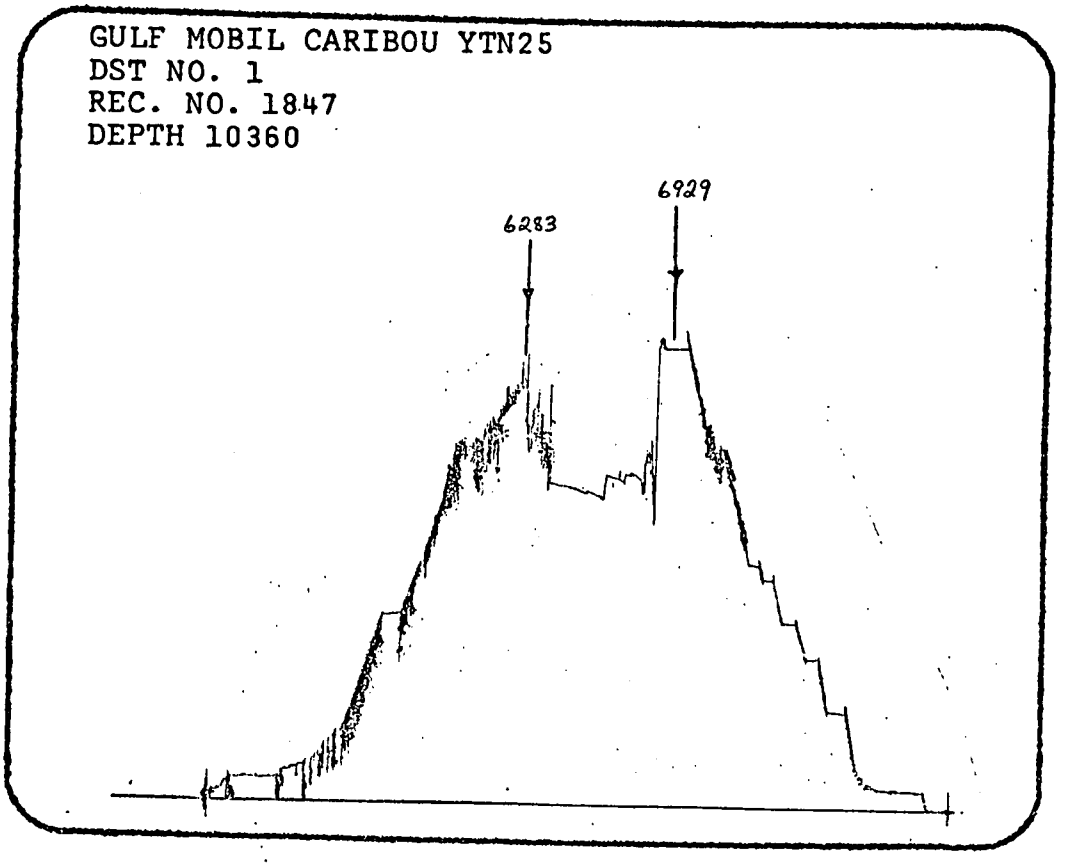
REMARKS: TEST - MISRUN. DID NOT GET PROPER SHUT-INS.

DST RECORDER CHARTS





DST RECORDER CHARTS



GULF MOBIL CARIBOU

YTN25

DST NO. 2

PETCO SERVICES (1973) LTD.
DRILL-STEM TEST DATA

P.O. BOX 6793, STN. D
CALGARY, ALBERTA
Bus. 403 - 269-8291

Well Name	GULF MOBIL CARIBOU	Test No.	2
Well Number	YTN25	Zone Tested	RONNING
Company	GULF OIL CANADA LTD.	Interval	9890 - 10300
Comp. Rep.	G. MITCHELL	Tester C. ADAMS	Date AUGUST 23, 1974

Type of Test: BOTTOM HOLE RFS Tool No.

Preflow mins. ISI mins. Flow 75 mins. FSI 142 mins.

	IN REC. No. 2089 7250 RANGE 24 HR. CLOCK	OUT REC. No. 4366 7250 RANGE 24 HR. CLOCK	OUT REC. No. 1847 10000 RANGE 24 HR. CLOCK
DEPTH	9865	9920	9925
Initial Hydro Mud Press		6244	6279
Initial Shut-In Press			
Initial Flow Press		2125	2145
Final Flow Press		2263	2273
Final Shut-In Press		3812	3825
Final Hydro Mud Press		5713	5836

Mud Type GEL BASE Fluid Loss 5 Mud Weight 12.2
Viscosity 75 Temperature °F 208 Net Pay Tested 35
Top Packer Depth 9890 Bottom Packer Depth N/A Total Depth 10300
Drill Pipe Size 4.5 XH Wt. 16.6 Drill Collar I.D. 2.750 Ft. Run 450
Surface Choke Size N/A Bottom Choke Size 0.625 Main Hole Size 9.625
Anchor Size N/A Rat Hole Size 8.5 Feet of Rat Hole N/A
Cushion Amount 5000 Type WATER Rubber Size 7.750

Fluid Recovery Total Feet	500		
Recovered	100	Feet of	WATER
Recovered	400	Feet of	GAS CUT MUD
Recovered		Feet of	
Recovered		Feet of	
Recovered		Feet of	

Gas Recovery How Measured Riser size:

mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day

Bleed Off Time for Drill Pipe

REMARKS: GOOD INITIAL PUFF ON VALVE OPEN. WEAK AIR BLOW THROUGHOUT FLOW PERIOD.

A Core Lab Gas Cont. No. Chem - Geo. Lab Gas Cont. No.

P.O. SUB.		.95
XO. SUB		.75
SHUT IN TOOL		
R.P.S. No.		
HYDRAULIC TOOL		
JARS		7.10
~~RECORDER No.~~	M.F.E.	8.40 DEPTH
RECORDER No.		4.50 DEPTH
BYPASS SUB.		3.10
SAFETY JOINT		1.85
1. PACKER DEPTH — PACKER	S.S. & PACKER	8.45
	EXTENSION	3.00
2. PACKER DEPTH — PACKER		5.25 TOTAL TOOL ABOVE INTERVAL 43.35
ANCHOR — STUB.		1.00
PERF.		15.00
BLANK OFF OR BY PASS SUB		
RECORDER No.		4.50 DEPTH
RECORDER No.		4.50 DEPTH
X.O. SUB.		1.00
D.P. ☒ D.C. ☐		374.18
X.O. SUB		.95
3. PACKER DEPTH — ~~PACKER~~	REC-BULLNOSE	8.30 TOTAL INTERVAL 35.25
4. PACKER DEPTH — PACKER		
ANCHOR — PERF.		
RECORDER No.		DEPTH
X.O. SUB.		
D.P. ☐ D.C. ☐		
X.O. SUB.		
TOTAL DEPTH — BULLNOSE		

TOTAL TAIL PIPE

TOTAL TEST TOOL 78.60

REMARKS: TEST - SUCCESSFUL

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: RONNING

REC NO. 1647
DST NO. 2
DEPTH 9925

TIME - PRESSURE INCREMENTS

REMARKS	TIME MIN.	PRESSURE PSIG	T+DELTA(T)/ DELTA(T)
RUNNING IN HOLE	0.	0.	
	156.0	6277.8	
INITIAL HYDROSTATIC PRESSURE	171.0	6277.8	
FIRST FLOW PERIOD	0.	2151.7	
	10.0	2248.8	
	20.0	2276.5	
	30.0	2304.2	
	40.0	2587.1	
	50.0	2365.2	
	60.0	2429.0	
	70.0	2442.9	
FINAL FLOWING PRESSURE	75.0	2276.5	
BUILD-UP AFTER FIRST FLOW	0.	2276.5	
	3.0	2276.5	26.00
	5.0	2362.5	16.00
	10.0	2571.2	8.50
	15.0	2759.0	6.00
	20.0	2939.2	4.75
	25.0	3073.8	4.00
	30.0	3187.5	3.50
	35.0	3292.8	3.14
	40.0	3387.1	2.87
	45.0	3456.4	2.67
	50.0	3520.2	2.50
	55.0	3570.1	2.36
	60.0	3603.4	2.25
	65.0	3628.4	2.15
	70.0	3650.6	2.07
	75.0	3664.4	2.00
	80.0	3678.3	1.94
	85.0	3689.4	1.88
	90.0	3697.7	1.83
	95.0	3714.3	1.79
	100.0	3728.2	1.75

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: RONNING

REC NO. 1647
DST NO. 2
DEPTH 9925

TIME - PRESSURE INCREMENTS

REMARKS	TIME MIN.	PRESSURE PSIG	T+DELTA(T)/ DELTA(T)
	105.0	3739.3	1.71
	110.0	3750.4	1.68
	115.0	3761.5	1.65
	120.0	3775.3	1.62
	125.0	3786.4	1.60
	130.0	3797.5	1.58
	135.0	3808.6	1.56
	140.0	3822.5	1.54
FIRST SHUT-IN PRESSURE	142.0	3825.3	1.53
PULLING OUT OF HOLE	0.	3825.3	
FINAL HYDROSTATIC PRESSURE	1.0	5835.5	
	22.0	5835.5	
OUT OF HOLE	160.0	0.	

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: RONNING
RECOVERY TYPE USED IN CALCULATIONS: MUD

REC NO. 1847
DST NO. 2
DEPTH 9925
INTERVAL 9890-10300

SUMMARY OF CALCULATIONS

1 FIRST SHUT-IN

EXTRAPOLATED FORMATION PRESSURE	4176.1 PSIG
SLOPE OF EXTRAPOLATED LINE	1907.17 PSI/CYCLE
ROOT MEAN SQUARE DEVIATION OF FITTED LINE	1.24 PSI
NUMBER OF POINTS IN SHUT-IN	31
NUMBER OF POINTS USED FOR EXTRAPOLATION	6

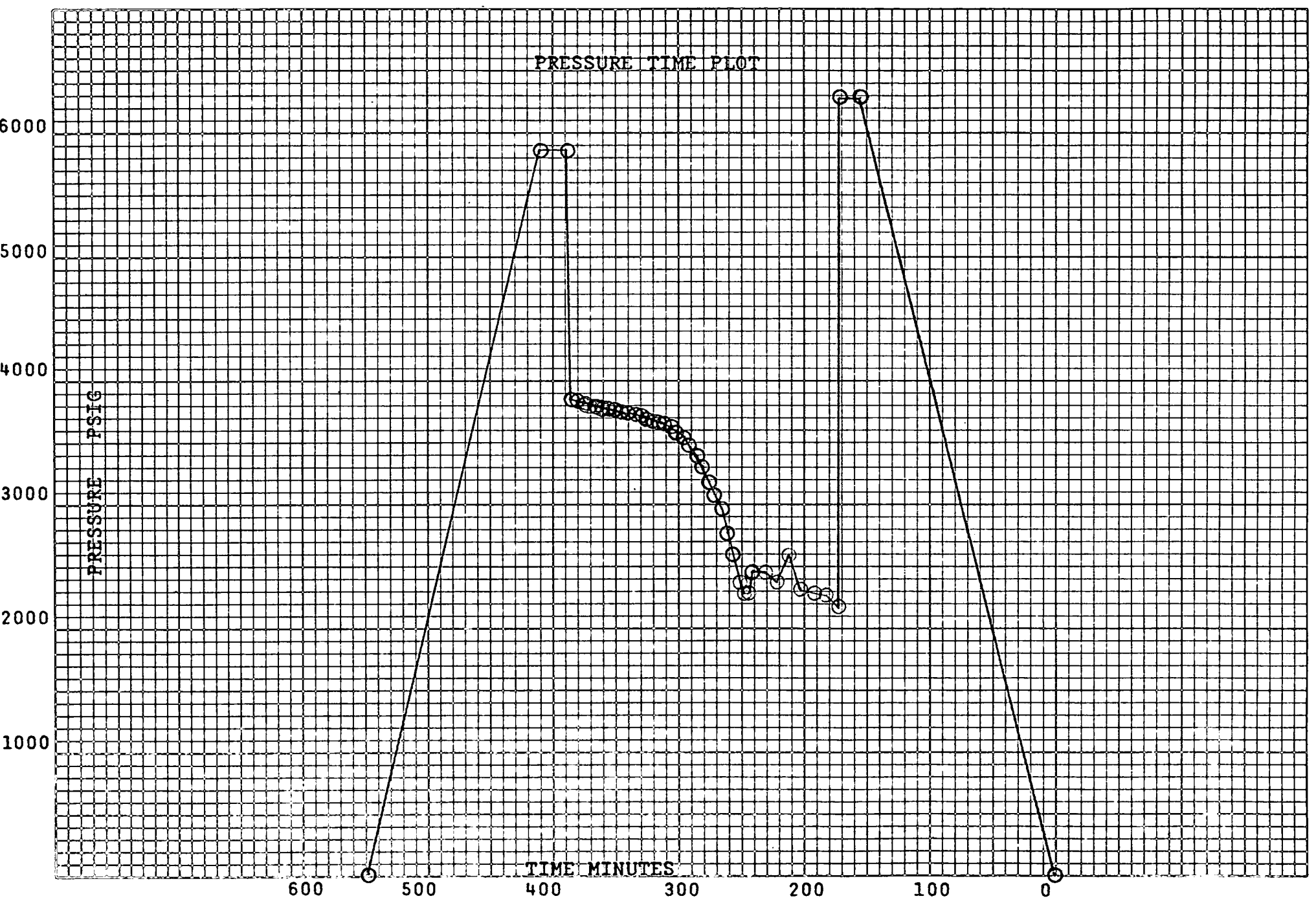
2 RESERVOIR AND FLUID PROPERTIES

NET PAY	35.00 FT
RESERVOIR POROSITY	3.50 PERCENT
PRODUCTION RATE	56.4 BPD
FORMATION VOLUME FACTOR	1.000 RB/STB
FLUID VISCOSITY	0.260 C.P.
TOTAL COMPRESSIBILITY X 10-6	11.500 /PSI
RESERVOIR TEMPERATURE	208.0 F
FINAL FLOWING PRESSURE	2276.5 PSIG
TOTAL FLOW TIME	75.0 MIN

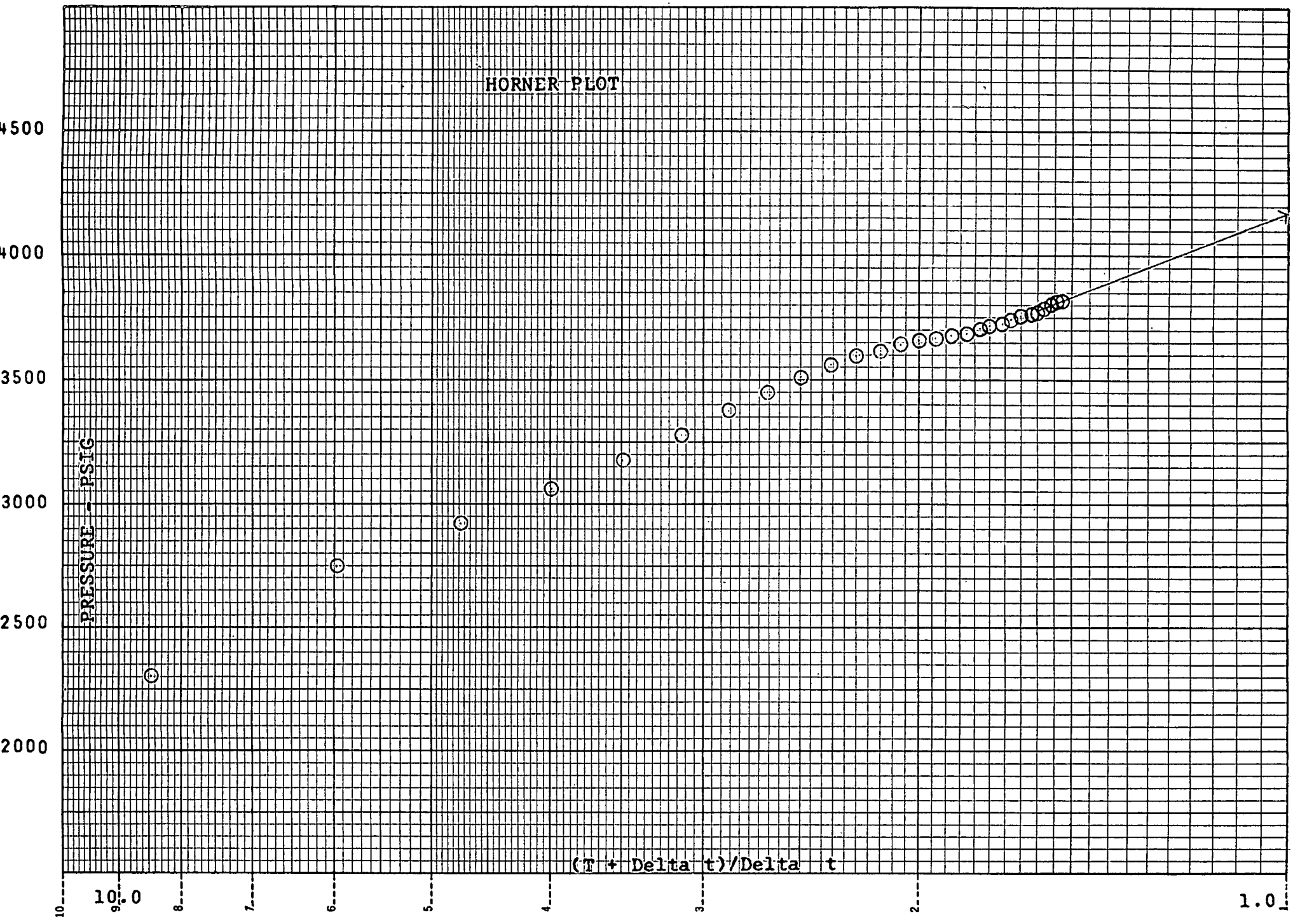
3 CALCULATION RESULTS

ESTIMATED DAMAGE RATIO	0.31
PERMEABILITY THICKNESS	1.3 MD FT
PERMEABILITY	0.04 MD
SKIN FACTOR	-2.53
APPROXIMATE DRAINAGE RADIUS	21.1 FT
PRODUCTIVITY INDEX	0.030 BPD/PSI

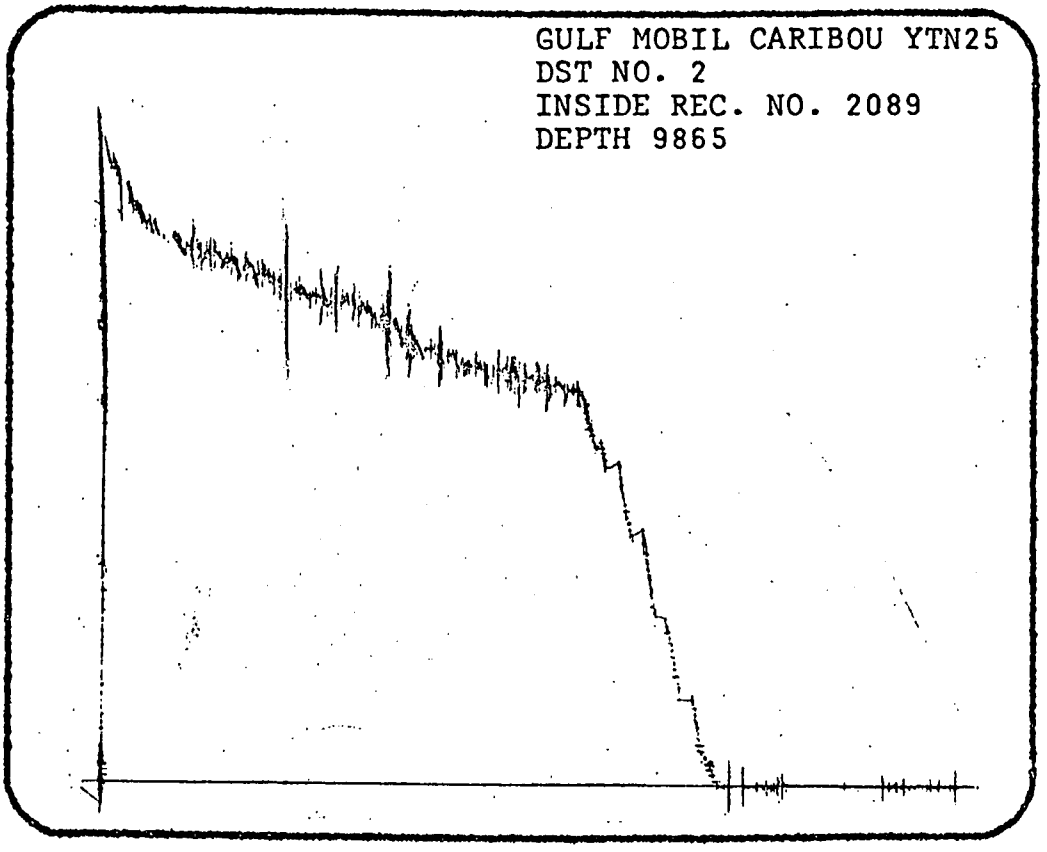
GULF MOBIL YTN 25 REC. NO. 1847 DST NO. 2

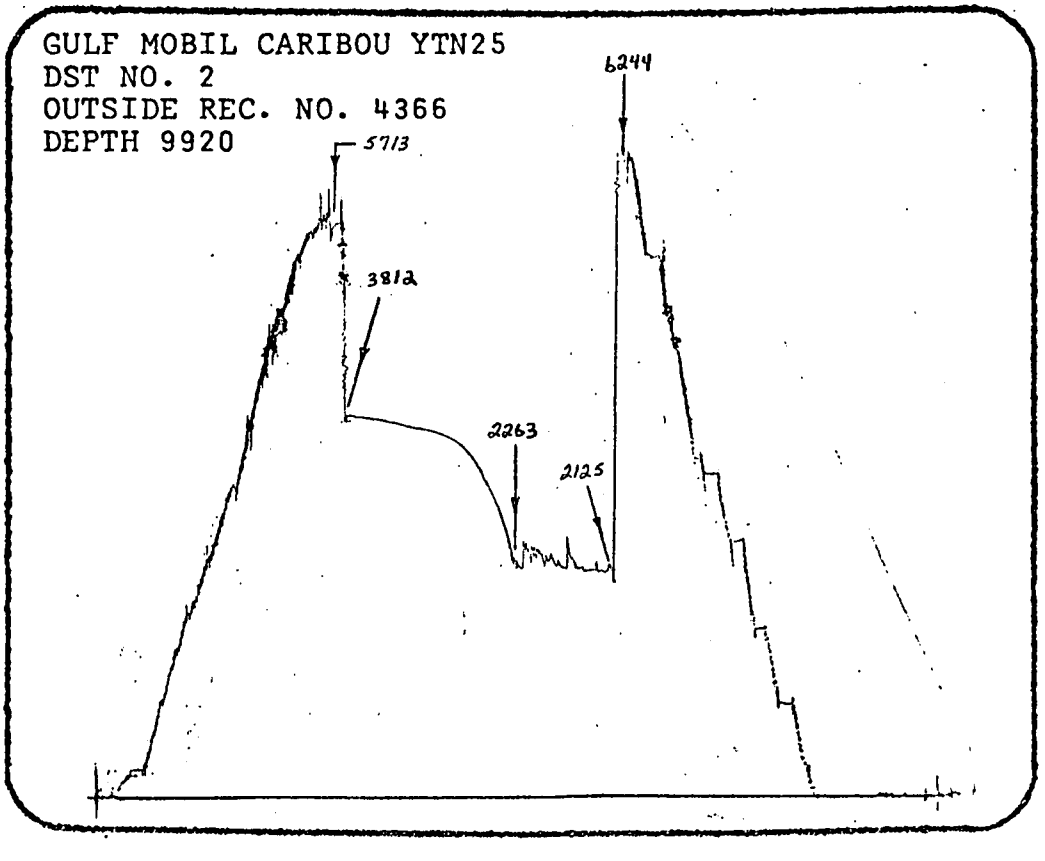


GULF MOBIL YNT 25 DST NO. 2 P* = 4176.1



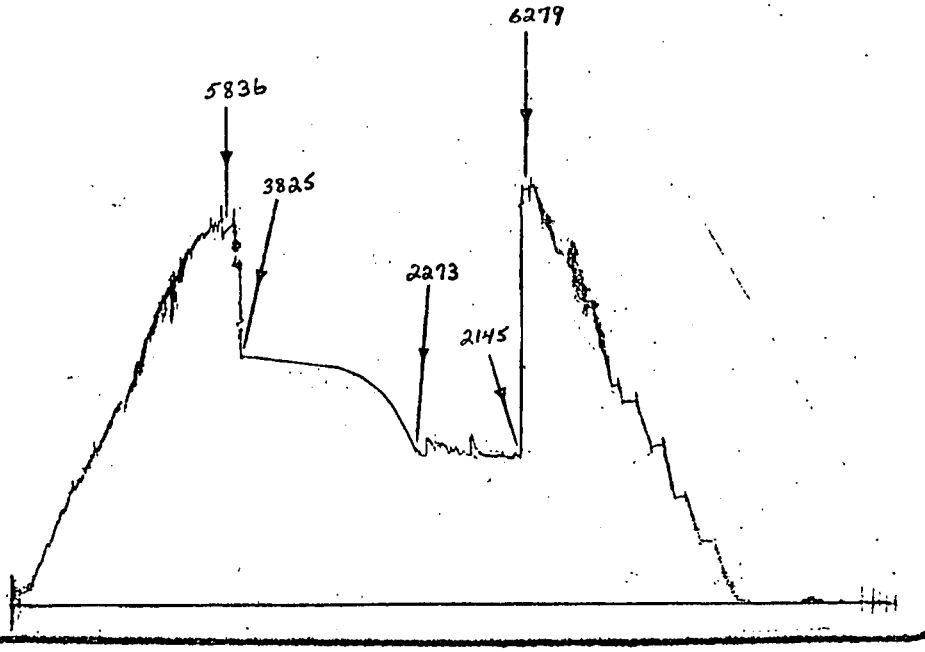
DST RECORDER CHARTS



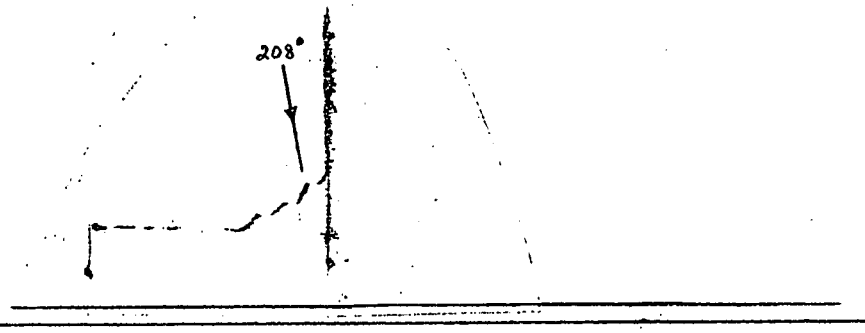


DST RECORDER CHARTS

GULF MOBIL CARIBOU YTN25
DST NO. 2
OUTSIDE REC. NO. 1847
DEPTH 9925



GULF MOBIL CARIBOU YTN25
DST NO. 2
TEMPERATURE REC. NO. 28570



The analysis of this test is based upon calculations of the data contained in this report. Some assumptions with regard to reservoir properties may have been made if the information was not supplied. The most up to date methods were utilized to determine the results, ensuring a complete and accurate report.

Any questions regarding the procedure or results should be directed to:

PETCO SERVICES (1973) LTD.
#912 Charter Towers
614 - 5 Avenue S.W.
Calgary, Alberta
403 - 269 - 8291

GULF MOBIL CARIBOU

YTN25

DST NO. 3

PETCO SERVICES (1973) LTD.

P.O. BOX 6793, STN. D
CALGARY, ALBERTA
Bus. 403 - 269-8291

DRILL-STEM TEST DATA

Well Name	GULF MOBIL CARIBOU	Test No.	3
Well Number	YTN25	Zone Tested	WILDCAT
Company	GULF OIL CANADA LTD.	Interval	5820 - 5865
Comp. Rep.	G. MITCHELL Tester C. ADAMS	Date	AUGUST 26, 1974

Type of Test CASING (POSI-TEST) RFS Tool No.

Preflow 15 mins. ISI 60 mins. Flow 90 mins. FSI 210 mins.

	IN REC. No. 4366 7250 RANGE 24 HR. CLOCK	OUT REC. No. 2088 7150 RANGE 24 HR. CLOCK	OUT REC. No. 2089 7250 RANGE 24 HR. CLOCK
DEPTH	5805	5830	5835
Initial Hydro Mud Press	3629	3570	3675
Initial Shut-In Press	121	180	158
Initial Flow Press	27	91	79
Final Flow Press	43	105	82
Final Shut-In Press	117	173	147
Final Hydro Mud Press	3377	3364	3408

Mud TYPE GEL BASE
Viscosity 75
Top Packer Depth 5820
Drill Pipe Size 4.5 XH
Surface Choke Size N/A
Anchor Size N/A
Cushion Amount NIL

Fluid Loss 5
Temperature °F 150
Bottom Packer Depth 5865
Wt. 16.6 Drill Collar I.D. 2.750
Bottom Choke Size 0.625
Rat Hole Size N/A
Type NIL

Mud Weight 11
Net Pay Tested 2
Total Depth N/A
Ft. Run 188
Main Hole Size 9.625
Feet of Rat Hole N/A
Rubber Size 9.625

Fluid Recovery Total Feet 90
Recovered 90 Feet of SLIGHTLY GAS CUT DRILLING MUD
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Gas Recovery How Measured Riser size:

mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day

Bleed Off Time for Drill Pipe

REMARKS: GOOD INITIAL PUFF ON VALVE OPEN, FOLLOWED BY MODERATE AIR BLOW. DEAD AFTER 75 MINUTES OF FLOW PERIOD.

A Core Lab Gas Cont. No. Chem - Geo. Lab Gas Cont. No.

P.O. SUB.		.95
XO. SUB		.75
~~SHUT IN TOOL~~	D.C.	150.00
R.P.S. No.		
HYDRAULIC TOOL		
~~XXX~~	M.F.E.	6.70
~~RECORDER No.~~	S. CHAMBER	2.45 DEPTH
RECORDER No.		4.50 DEPTH
BYPASS SUB.		3.10
SAFETY JOINT		1.85
	X.O.S.	1.00
1. PACKER DEPTH ~~XXXXXX~~	D.C.	31.10
	X.O.S.	1.00
2. PACKER DEPTH PACKER		3.45 TOTAL TOOL ABOVE INTERVAL 25.75
ANCHOR — STUB.		2.00
PERF.		10.00
BLANK OFF OR BY PASS SUB		
RECORDER No.		4.50 DEPTH
RECORDER No.		4.50 DEPTH
X.O. SUB.		
D.P. ☐ D.C. ☐		
X.O. SUB		
3. PACKER DEPTH ~~XXXXX~~ PACKER	REC. - BULLNOSE	8.20 TOTAL INTERVAL 29.20
4. PACKER DEPTH PACKER		
ANCHOR — PERF.		
RECORDER No.		DEPTH
X.O. SUB.		
D.P. ☐ D.C. ☐		
X.O. SUB.		
TOTAL DEPTH BULLNOSE		

TOTAL TAIL PIPE

TOTAL TEST TOOL 54.95

REMARKS: TEST - SUCCESSFUL

B

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: WILDCAT

REC NO. 2089
DST NO. 3
DEPTH 5835

TIME - PRESSURE INCREMENTS

REMARKS	TIME MIN.	PRESSURE PSIG	T+DELTA(T)/ DELTA(T)
RUNNING IN HOLE	0.	0.0	
	96.0	3675.5	
INITIAL HYDROSTATIC PRESSURE	110.0	3675.5	
FIRST FLOW PERIOD	0.	83.5	
FINAL FLOWING PRESSURE	15.0	87.1	
BUILD-UP AFTER FIRST FLOW	0.	87.1	
	5.0	98.0	4.00
	10.0	107.0	2.50
	15.0	116.0	2.00
	20.0	123.2	1.75
	25.0	130.4	1.60
	30.0	137.6	1.50
	35.0	143.0	1.43
	40.0	147.6	1.37
	45.0	151.2	1.33
	50.0	158.4	1.30
	55.0	158.4	1.27
INITIAL SHUT-IN PRESSURE	60.0	162.9	1.25
SECOND FLOW PERIOD	0.	162.9	
INITIAL FLOWING PRESSURE	1.0	83.5	
	10.0	85.3	
	20.0	87.1	
	30.0	87.1	
	40.0	87.1	
	50.0	87.1	
	60.0	87.1	
	70.0	87.1	
	80.0	87.1	

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: WILDCAT

REC NO. 2089
DST NO. 3
DEPTH 5835

TIME - PRESSURE INCREMENTS

REMARKS	TIME MIN.	PRESSURE PSIG	T+DELTA(T)/ DELTA(T)
FINAL FLOWING PRESSURE	90.0	87.1	
BUILD-UP AFTER SECOND FLOW	0.	87.1	
	10.0	94.4	23.50
	20.0	98.0	12.25
	30.0	101.6	8.50
	40.0	105.2	6.62
	50.0	108.8	5.50
	60.0	112.4	4.75
	70.0	116.0	4.21
	80.0	119.6	3.81
	90.0	123.2	3.50
	100.0	125.0	3.25
	110.0	126.8	3.05
	120.0	130.4	2.87
	125.0	132.2	2.80
	130.0	128.6	2.73
	135.0	134.0	2.67
	140.0	135.8	2.61
	145.0	137.6	2.55
	150.0	139.4	2.50
	155.0	141.2	2.45
	160.0	143.0	2.41
	165.0	143.9	2.36
	170.0	144.8	2.32
	175.0	145.7	2.29
	180.0	146.6	2.25
	185.0	147.6	2.22
	190.0	148.5	2.18
	195.0	149.4	2.15
	200.0	150.3	2.12
	205.0	151.2	2.10
SECOND SHUT-IN PRESSURE	210.0	152.1	2.07
PULLING OUT OF HOLE	0.	152.1	
FINAL HYDROSTATIC PRESSURE	1.0	3408.6	

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: WILDCAT

REC NO. 2089
DST NO. 3
DEPTH 5835

TIME - PRESSURE INCREMENTS

REMARKS	TIME MIN.	PRESSURE PSIG	T+DELTA(T)/ DELTA(T)
	10.0	3408.6	
OUT OF HOLE	140.0	0.0	

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: WILDCAT
RECOVERY TYPE USED IN CALCULATIONS: MUD

REC NO. 2089
DST NO. 3
DEPTH 5835
INTERVAL 5820-5865

SUMMARY OF CALCULATIONS

1 FIRST SHUT-IN

EXTRAPOLATED FORMATION PRESSURE	198.3 PSIG
SLOPE OF EXTRAPOLATED LINE	368.30 PSI/CYCLE
ROOT MEAN SQUARE DEVIATION OF FITTED LINE	1.21 PSI
NUMBER OF POINTS IN SHUT-IN	13
NUMBER OF POINTS USED FOR EXTRAPOLATION	5

2 SECOND SHUT-IN

EXTRAPOLATED FORMATION PRESSURE	195.4 PSIG
SLOPE OF EXTRAPOLATED LINE	245.96 PSI/CYCLE
ROOT MEAN SQUARE DEVIATION OF FITTED LINE	0.02 PSI
NUMBER OF POINTS IN SHUT-IN	31
NUMBER OF POINTS USED FOR EXTRAPOLATION	4
DIFFERENCE (2ND-1ST EXTRAPOLATION)	-3.0 PSI

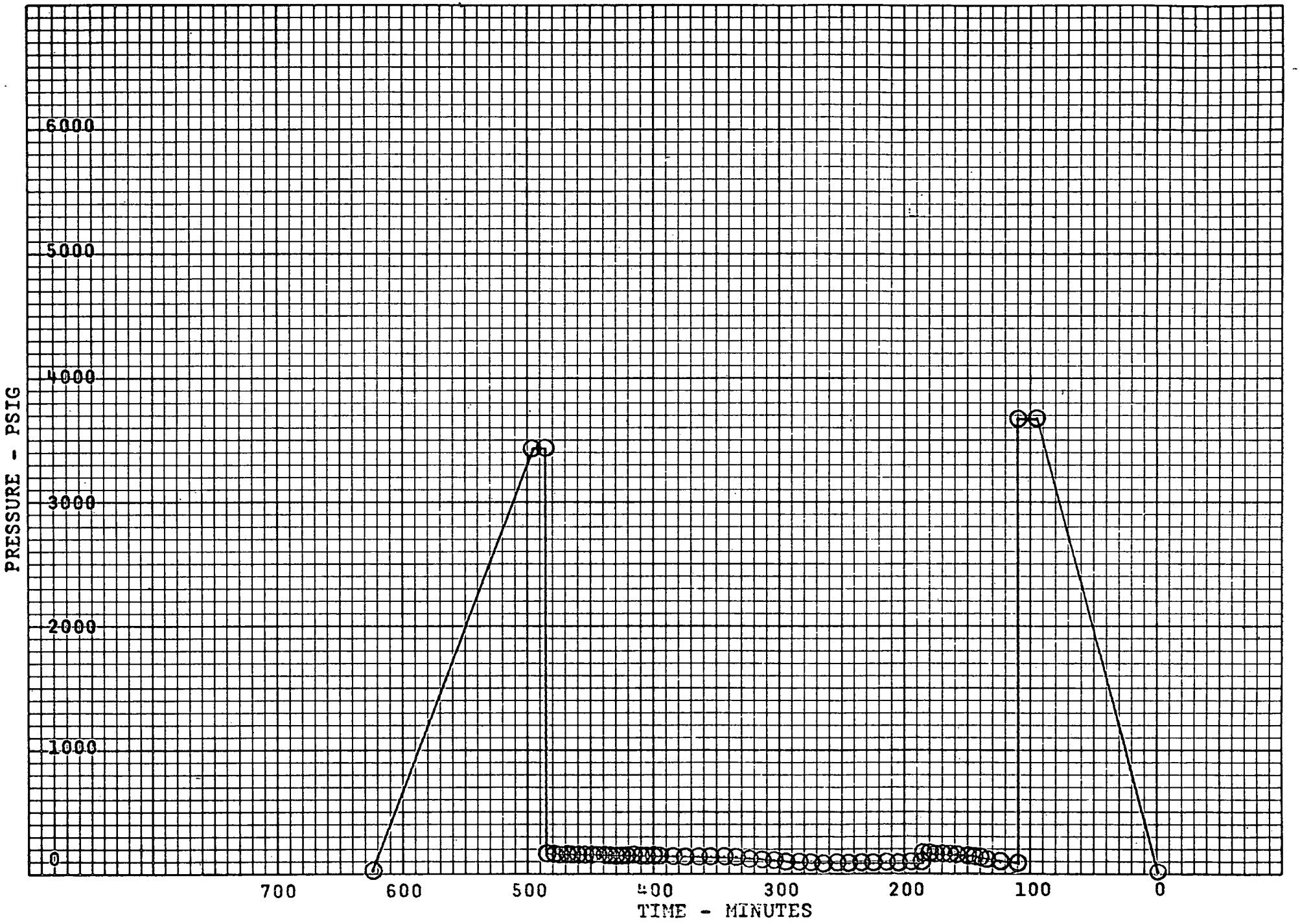
3 RESERVOIR AND FLUID PROPERTIES

NET PAY	2.00 FT
RESERVOIR POROSITY	2.00 PERCENT
PRODUCTION RATE	4.2 BPD
FORMATION VOLUME FACTOR	1.000 RB/STB
FLUID VISCOSITY	0.440 C.P.
TOTAL COMPRESSIBILITY X 10-6	13.000 /PSI
RESERVOIR TEMPERATURE	150.0 F
FINAL FLOWING PRESSURE	87.1 PSIG
TOTAL FLOW TIME	225.0 MIN

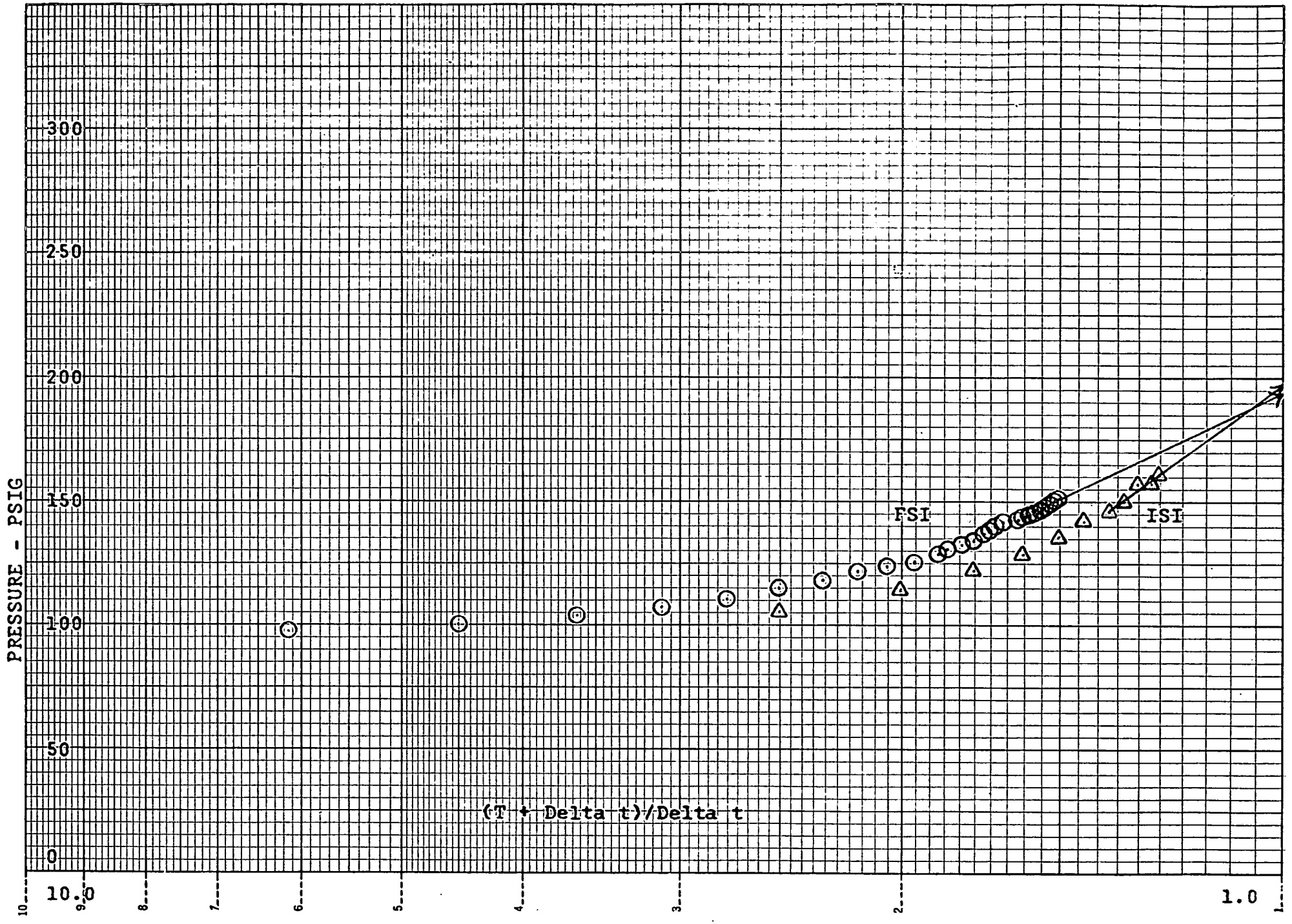
4 CALCULATION RESULTS

ESTIMATED DAMAGE RATIO	0.10
PERMEABILITY THICKNESS	1.2 MD FT
PERMEABILITY	0.62 MD
SKIN FACTOR	-4.72
APPROXIMATE DRAINAGE RADIUS	99.3 FT
PRODUCTIVITY INDEX	0.039 BPD/PSI

GULF MOBIL CARIBOU YTN25 DST NO. 3 REC. NO. 2089

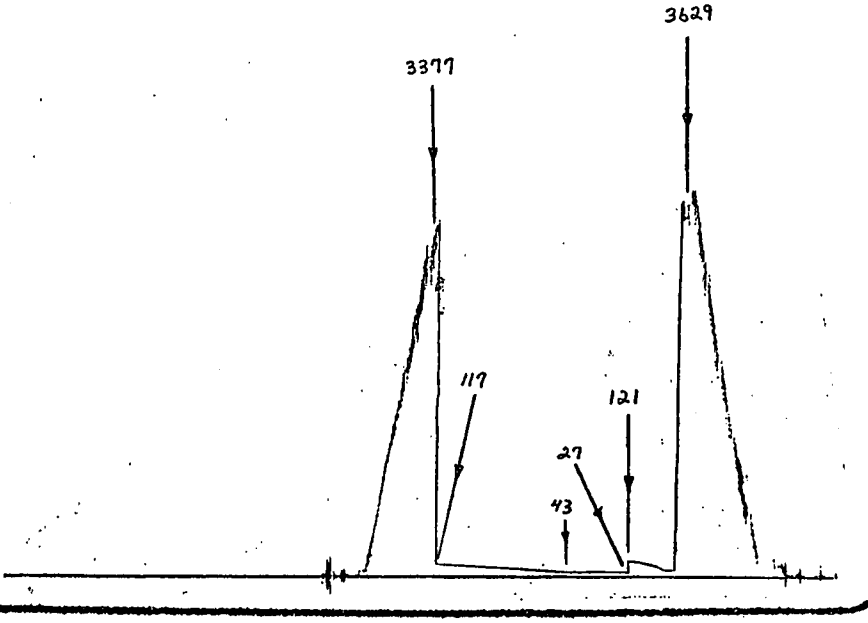


GULF MOBIL CARIBOU YTN25 T NO. 3 P* = 195.4 PSIG

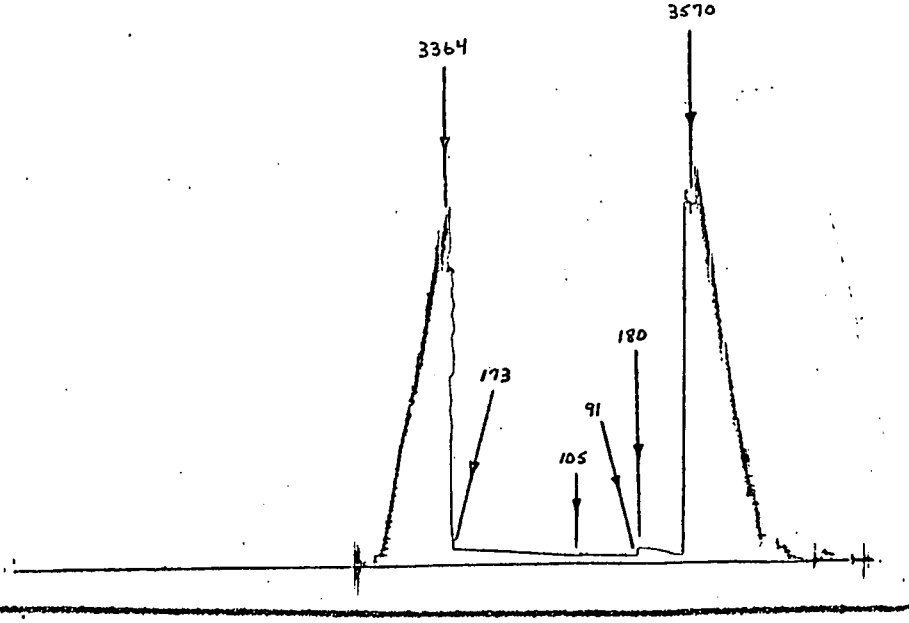


DST RECORDER CHARTS

GULF MOBIL CARIBOU YTN25
DST NO. 3
INSIDE REC. NO. 4366
DEPTH 5805

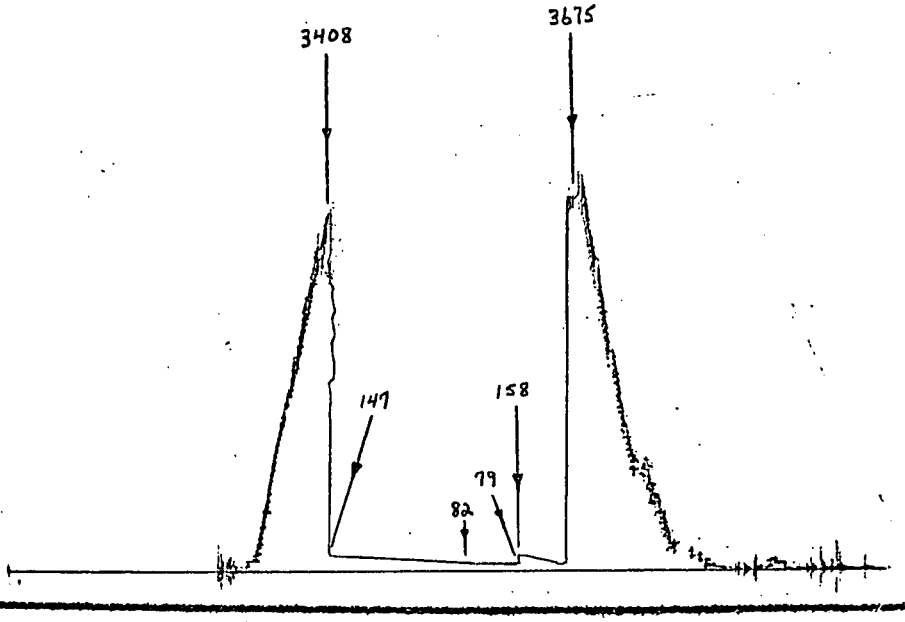


GULF MOBIL CARIBOU YTN25
DST NO. 3
OUTSIDE REC. NO. 2088
DEPTH 5830

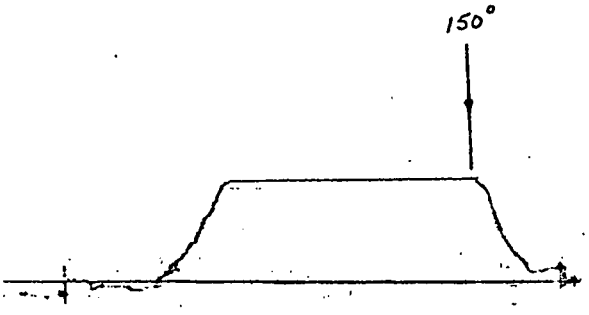


DST RECORDER CHARTS

GULF MOBIL CARIBOU YTN25
DST NO. 3
OUTSIDE REC. NO. 2089
DEPTH 5835



GULF MOBIL CARIBOU YTN25
DST NO. 3
TEMPERATURE REC. NO. 28570



The analysis of this test is based upon calculations of the data contained in this report. Some assumptions with regard to reservoir properties may have been made if the information was not supplied. The most up to date methods were utilized to determine the results, ensuring a complete and accurate report.

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PETCO SERVICES (1973) LTD.
#912 Charter Towers
614 - 5 Avenue S.W.
Calgary, Alberta
403 - 269 - 8291

GULF MOBIL CARIBOU

YTN25

DST NO. 4

PETCO SERVICES (1973) LTD.

P.O. BOX 6793, STN. D
CALGARY, ALBERTA
Bus. 403 - 269-8291

DRILL-STEM TEST DATA

Well Name	GULF MOBIL CARIBOU	Test No.	4
Well Number	YTN25	Zone Tested	WILDCAT
Company	GULF OIL CANADA LTD.	Interval	4700 -
Comp. Rep.	G. MITCHELL	Tester C. ADAMS	Date AUGUST 27, 1974

Type of Test CASING (POSI-TEST) RFS Tool No.

Preflow 10 mins. ISI 62 mins. Flow 120 mins. FSI 242 mins.

	IN REC. No. 2088 7150 RANGE 24 HR. CLOCK	OUT REC. No. 2089 7250 RANGE 24 HR. CLOCK	OUT REC. No. 4366 7250 RANGE 24 HR. CLOCK
DEPTH	4685	4710	4715
Initial Hydro Mud Press	2899	2901	2952
Initial Shut-In Press	459	470	446
Initial Flow Press	87	102	96
Final Flow Press	101	126	105
Final Shut-In Press	393	403	380
Final Hydro Mud Press	2736	2802	2785

Mud ~~Type~~ TYPE GEL BASE — Fluid Loss 6 — Mud Weight 11.4

Viscosity 75 — Temperature °F 139 — Net Pay Tested 45

Top Packer Depth 4700 — Bottom Packer Depth N/A — Total Depth N/A

Drill Pipe Size 4.5 XH — Wt. 16.6 — Drill Collar I.D. 2.750 — Ft. Run 188

Surface Choke Size N/A — Bottom Choke Size 0.625 — Main Hole Size 9.625

Anchor Size N/A — Rat Hole Size N/A — Feet of Rat Hole N/A

Cushion Amount NIL — Type NIL — Rubber Size 9.625

Fluid Recovery Total Feet 150

Recovered 150 Feet of DRILLING MUD

Recovered Feet of

Recovered Feet of

Recovered Feet of

Recovered Feet of

Gas Recovery — How Measured — Riser size:

mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day

Bleed Off Time for Drill Pipe

REMARKS: GOOD INITIAL PUFF ON VALVE OPEN. WEAK STEADY AIR BLOW THROUGHOUT FLOW PERIOD.

A Core Lab Gas Cont. No. — Chem - Geo. Lab Gas Cont. No.

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: WILDCAT

REC NO. 2088
DST NO. 4
DEPTH 4685

TIME - PRESSURE INCREMENTS

REMARKS	TIME MIN.	PRESSURE PSIG	T+DELTA(T)/ DELTA(T)
RUNNING IN HOLE	0.	0.0	
	80.0	2903.2	
INITIAL HYDROSTATIC PRESSURE	104.0	2903.2	
FIRST FLOW PERIOD	0.	94.2	
FINAL FLOWING PRESSURE	10.0	115.6	
BUILD-UP AFTER FIRST FLOW	0.	115.6	
	5.0	203.3	3.00
	10.0	251.7	2.00
	15.0	294.6	1.67
	20.0	323.3	1.50
	25.0	348.3	1.40
	30.0	369.8	1.33
	35.0	391.3	1.29
	40.0	409.2	1.25
	45.0	427.1	1.22
	50.0	439.6	1.20
	55.0	452.1	1.18
INITIAL SHUT-IN PRESSURE	62.0	466.5	1.16
SECOND FLOW PERIOD	0.	466.5	
INITIAL FLOWING PRESSURE	1.0	94.2	
	10.0	119.2	
	20.0	119.2	
	30.0	124.6	
	40.0	124.6	
	50.0	115.6	
	60.0	113.8	
	70.0	115.6	
	80.0	122.8	

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: WILDCAT

REC NO. 2088
DST NO. 4
DEPTH 4685

TIME - PRESSURE INCREMENTS

REMARKS	TIME MIN.	PRESSURE PSIG	T+DELTA(T)/ DELTA(T)
	90.0	130.0	
	100.0	124.6	
	110.0	112.1	
FINAL FLOWING PRESSURE	120.0	108.5	
BUILD-UP AFTER SECOND FLOW	0.	108.5	
	10.0	137.1	14.00
	20.0	158.6	7.50
	30.0	176.5	5.33
	40.0	192.6	4.25
	50.0	208.7	3.60
	60.0	221.2	3.17
	70.0	233.8	2.86
	80.0	246.3	2.62
	90.0	257.0	2.44
	100.0	266.0	2.30
	110.0	280.3	2.18
	120.0	292.8	2.08
	125.0	298.2	2.04
	130.0	303.6	2.00
	135.0	308.9	1.96
	140.0	314.3	1.93
	145.0	319.7	1.90
	150.0	325.1	1.87
	155.0	328.6	1.84
	160.0	332.2	1.81
	165.0	337.6	1.79
	170.0	341.2	1.76
	175.0	346.5	1.74
	180.0	351.9	1.72
	185.0	355.5	1.70
	190.0	359.1	1.68
	195.0	364.4	1.67
	200.0	368.0	1.65
	205.0	373.4	1.63
	210.0	377.9	1.62
	215.0	382.3	1.60
	220.0	385.9	1.59
	225.0	389.5	1.58
	230.0	393.1	1.57
	235.0	396.6	1.55

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: WILDCAT

REC NO. 2088
DST NO. 4
DEPTH 4685

TIME - PRESSURE INCREMENTS

REMARKS	TIME MIN.	PRESSURE PSIG	T+DELTA(T)/ DELTA(T)
SECOND SHUT-IN PRESSURE	242.0	400.2	1.54
PULLING OUT OF HOLE	0.	400.2	
FINAL HYDROSTATIC PRESSURE	1.0	2740.3	
	15.0	2740.3	
OUT OF HOLE	125.0	0.0	

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: WILDCAT
RECOVERY TYPE USED IN CALCULATIONS: MUD

REC NO. 2088
DST NO. 4
DEPTH 4685
INTERVAL 4700-

SUMMARY OF CALCULATIONS

1 FIRST SHUT-IN

EXTRAPOLATED FORMATION PRESSURE	581.7 PSIG
SLOPE OF EXTRAPOLATED LINE	1781.76 PSI/CYCLE
ROOT MEAN SQUARE DEVIATION OF FITTED LINE	0.66 PSI
NUMBER OF POINTS IN SHUT-IN	13
NUMBER OF POINTS USED FOR EXTRAPOLATION	4

2 SECOND SHUT-IN

EXTRAPOLATED FORMATION PRESSURE	578.8 PSIG
SLOPE OF EXTRAPOLATED LINE	954.90 PSI/CYCLE
ROOT MEAN SQUARE DEVIATION OF FITTED LINE	0.28 PSI
NUMBER OF POINTS IN SHUT-IN	37
NUMBER OF POINTS USED FOR EXTRAPOLATION	4
DIFFERENCE (2ND-1ST EXTRAPOLATION)	-2.8 PSI

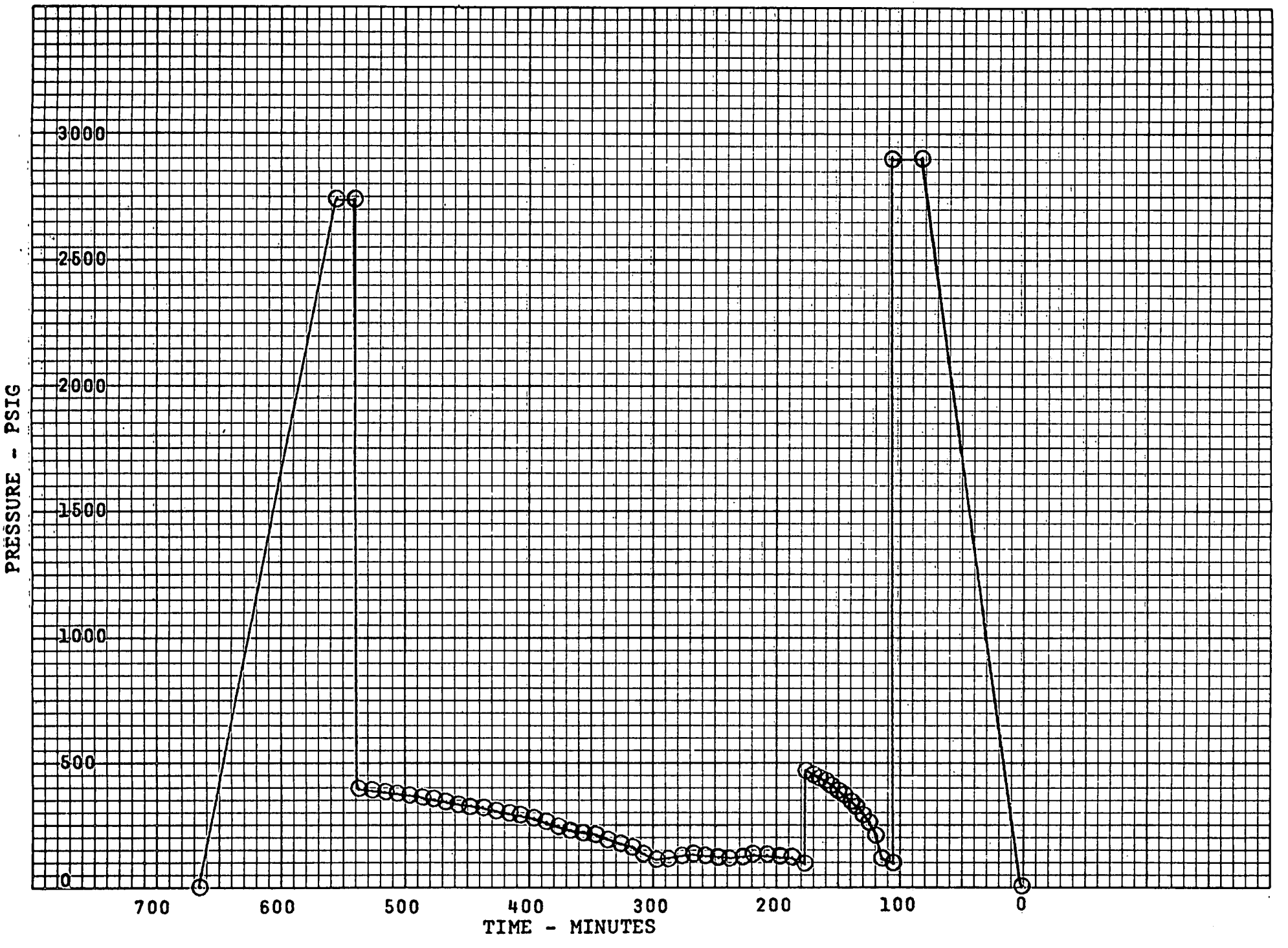
3 RESERVOIR AND FLUID PROPERTIES

NET PAY	45.00 FT
RESERVOIR POROSITY	4.50 PERCENT
PRODUCTION RATE	12.5 BPD
FORMATION VOLUME FACTOR	1.000 RB/STB
FLUID VISCOSITY	0.049 C.P.
TOTAL COMPRESSIBILITY X 10-6	9.800 /PSI
RESERVOIR TEMPERATURE	139.0 F
FINAL FLOWING PRESSURE	108.5 PSIG
TOTAL FLOW TIME	130.0 MIN

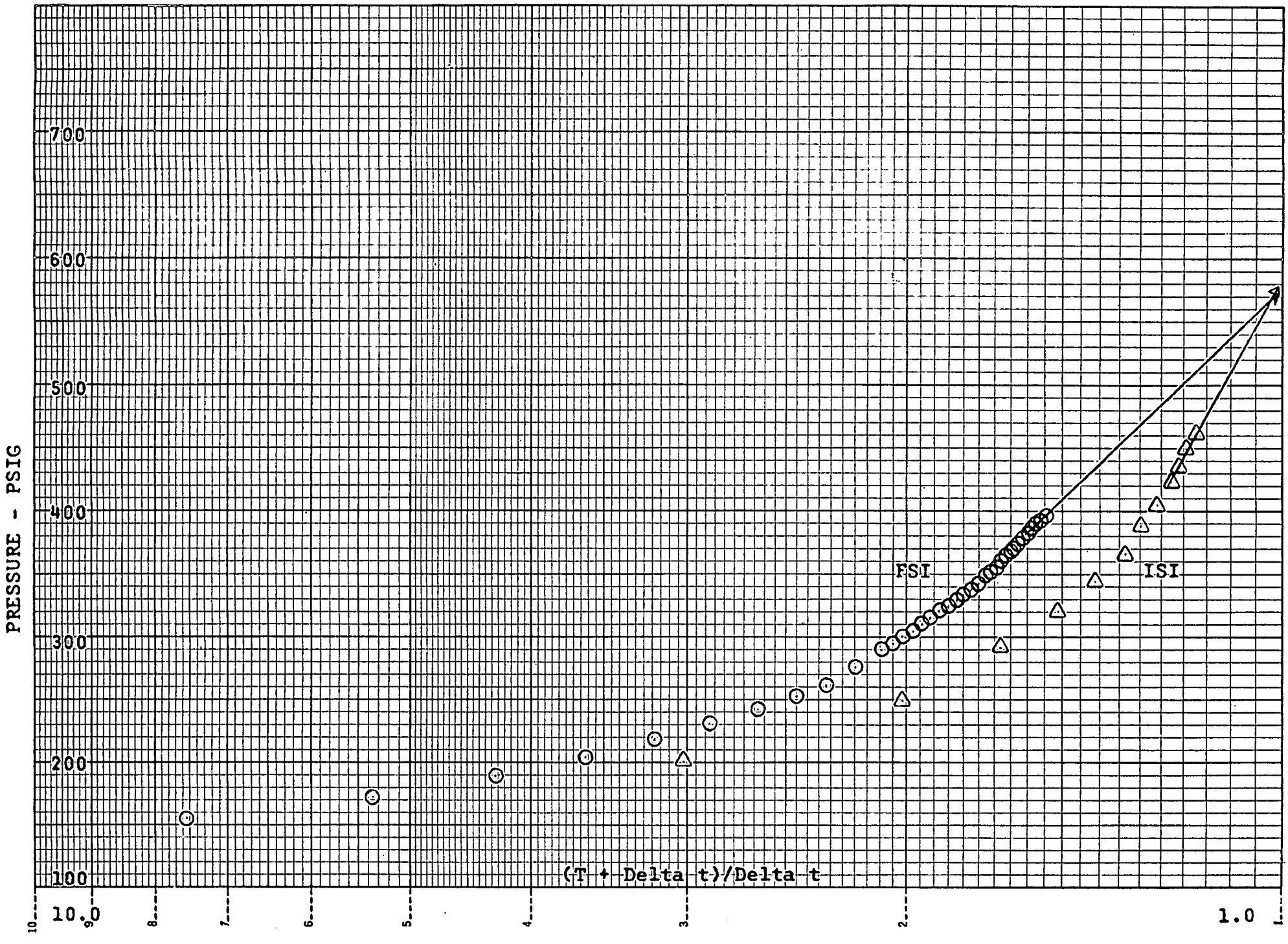
4 CALCULATION RESULTS

ESTIMATED DAMAGE RATIO	0.17
PERMEABILITY THICKNESS	0.1 MD FT
PERMEABILITY	0.00 MD
SKIN FACTOR	-2.81
APPROXIMATE DRAINAGE RADIUS	15.6 FT
PRODUCTIVITY INDEX	0.027 BPD/PSI

GULF MOBIL CARIBOU YTN25 DST NO. 4 REC. NO. 2088

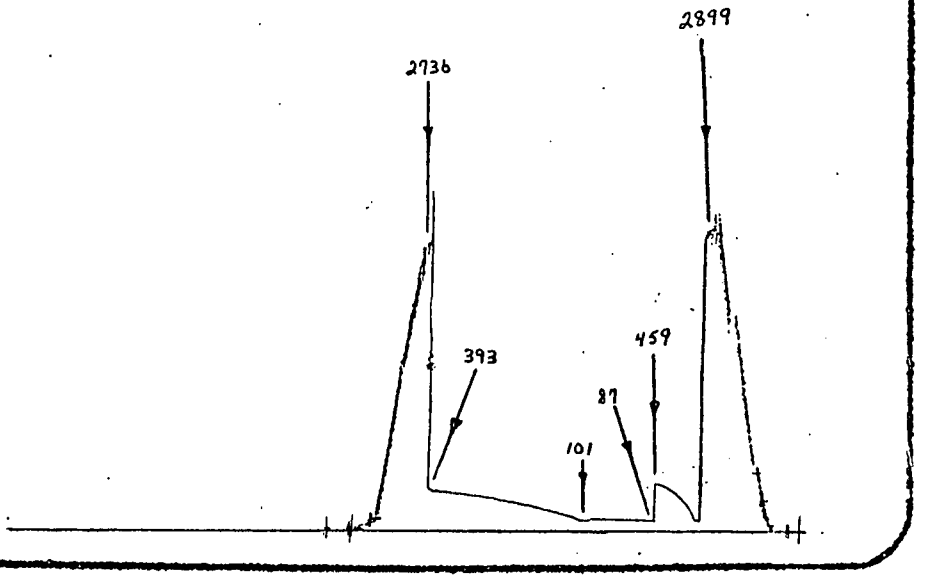


GULF MOBIL CARIBOU YTN25 DST NO. 4 P* = 578.8 PSIG

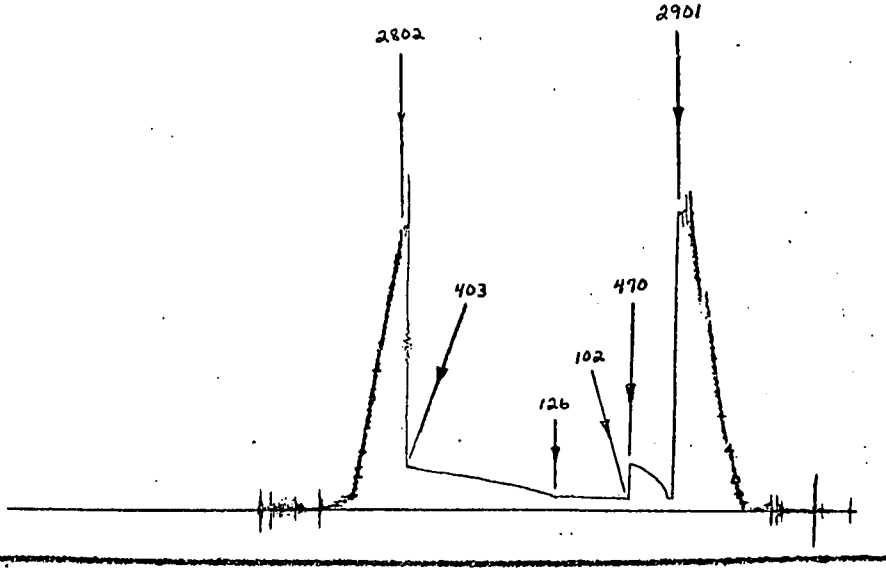


DST RECORDER CHARTS

GULF MOBIL CARIBOU YTN25
DST NO. 4
INSIDE REC. NO. 2088
DEPTH 4685

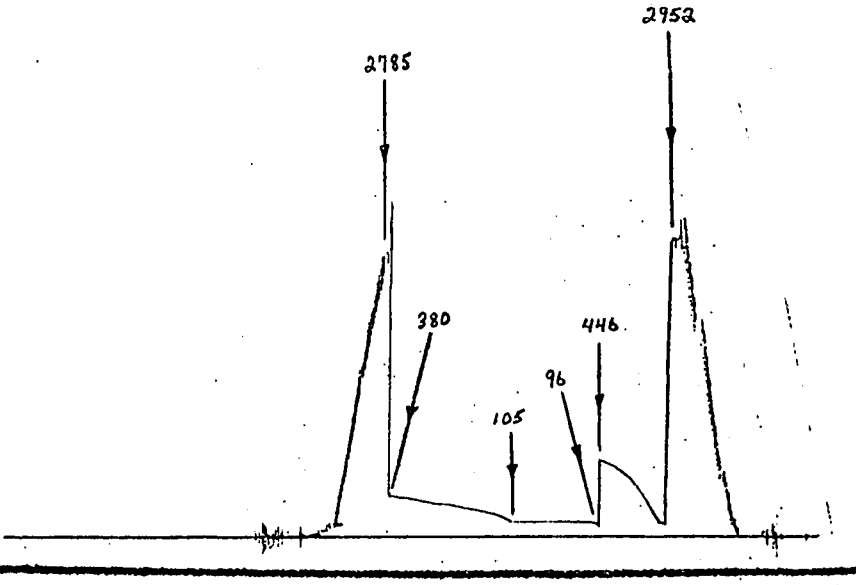


GULF MOBIL CARIBOU YTN25
DST NO. 4
OUTSIDE REC. NO. 2089
DEPTH 4710

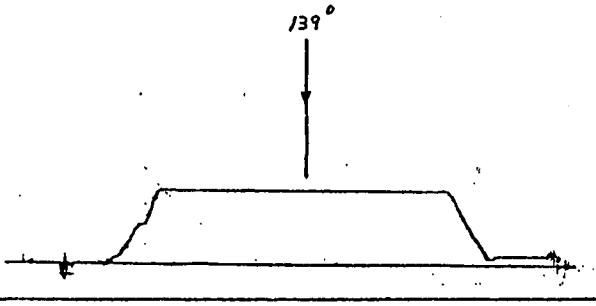


DST RECORDER CHARTS

GULF MOBIL CARIBOU YTN25
DST NO. 4
OUTSIDE REC. NO. 4366
DEPTH 4715



GULF MOBIL CARIBOU YTN25
DST NO. 4
TEMPERATURE REC. NO. 28570



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Calgary, Alberta
403 - 269 - 8291

GULF MOBIL CARIBOU

YTN25

DST NO. 5

PETCO SERVICES (1973) LTD.

P.O. BOX 6793, STN. D
CALGARY, ALBERTA
Bus. 403 - 269-8291

DRILL-STEM TEST DATA

Well Name	GULF MOBIL CARIBOU	Test No.	5
Well Number	YTN25	Zone Tested	WILDCAT
Company	GULF OIL CANADA LTD.	Interval	4530 - 4560 4610 - 4640
Comp. Rep.	R. CAMPBELL Tester C. ADAMS	Date	AUGUST 28, 1974

Type of Test: CASING (POSI-TEST) RFS Tool No.

Preflow 5 mins. ISI 65 mins. Flow 180 mins. FSI 300 mins.

	IN REC. No. 2088 7150 RANGE 24 HR. CLOCK	OUT REC. No. 2089 7250 RANGE 24 HR. CLOCK	OUT REC. No. 4366 7250 RANGE 24 HR. CLOCK
DEPTH	4460	4510	4520
Initial Hydro Mud Press	2719	2759	2749
Initial Shut-In Press	756	775	767
Initial Flow Press	91	93	81
Final Flow Press	109	131	123
Final Shut-In Press	509	530	518
Final Hydro Mud Press	2518	2568	2644

TYPE
Mud ~~XX~~ GEL BASE
Viscosity 80
Top Packer Depth N/A
Drill Pipe Size 4.5 XH
Surface Choke Size N/A
Anchor Size N/A
Cushion Amount NIL

Fluid Loss 6
Temperature °F 134
Bottom Packer Depth N/A
Wt. 16.6 Drill Collar I.D. 2.750
Bottom Choke Size 0.625
Rat Hole Size N/A
Type NIL

Mud Weight 11.4
Net Pay Tested 60
Total Depth N/A
Ft. Run 188
Main Hole Size 9.625
Feet of Rat Hole N/A
Rubber Size 9.625

Fluid Recovery Total Feet 150
Recovered 150 Feet of DRILLING MUD
Recovered Feet of
Recovered Feet of
Recovered Feet of
Recovered Feet of

Gas Recovery How Measured Riser size:

mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day
mins.	Temp. °F	Press Rdg.	psi	Orifice Size	=	MCF/Day

Bleed Off Time for Drill Pipe

REMARKS: GOOD INITIAL PUFF ON VALVE OPEN. MODERATE AIR BLOW THROUGHOUT FLOW PERIOD.

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: WILDCAT

REC NO. 2088
DST NO. 5
DEPTH 4460

TIME - PRESSURE INCREMENTS

REMARKS	TIME MIN.	PRESSURE PSIG	T+DELTA(T)/ DELTA(T)
RUNNING IN HOLE	0.	0.0	
	130.0	2722.7	
INITIAL HYDROSTATIC PRESSURE	194.0	2722.7	
FIRST FLOW PERIOD	0.	54.8	
FINAL FLOWING PRESSURE	5.0	83.4	
BUILD-UP AFTER FIRST FLOW	0.	83.4	
	5.0	290.9	2.00
	10.0	434.0	1.50
	15.0	530.6	1.33
	20.0	570.0	1.25
	25.0	605.7	1.20
	30.0	621.8	1.17
	35.0	627.2	1.14
	40.0	679.1	1.12
	45.0	707.7	1.11
	50.0	723.8	1.10
	55.0	731.0	1.09
	60.0	752.4	1.08
INITIAL SHUT-IN PRESSURE	65.0	763.2	1.08
SECOND FLOW PERIOD	0.	763.2	
INITIAL FLOWING PRESSURE	1.0	97.7	
	10.0	97.7	
	20.0	101.3	
	30.0	103.1	
	40.0	103.1	
	50.0	104.8	
	60.0	104.8	
	70.0	106.6	

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: WILDCAT

REC NO. 2088
DST NO. 5
DEPTH 4460

TIME - PRESSURE INCREMENTS

REMARKS	TIME MIN.	PRESSURE PSIG	T+DELTA(T)/ DELTA(T)
	80.0	106.6	
	90.0	106.6	
	100.0	106.6	
	110.0	108.4	
	120.0	108.4	
	130.0	110.2	
	140.0	110.2	
	150.0	112.0	
	160.0	112.0	
	170.0	115.6	
FINAL FLOWING PRESSURE	180.0	115.6	
BUILD-UP AFTER SECOND FLOW	0.	115.6	
	10.0	146.0	19.50
	20.0	172.8	10.25
	30.0	203.2	7.17
	40.0	226.5	5.62
	50.0	246.2	4.70
	60.0	265.8	4.08
	70.0	278.4	3.64
	80.0	296.3	3.31
	90.0	307.0	3.06
	100.0	321.3	2.85
	110.0	342.8	2.68
	120.0	353.5	2.54
	130.0	367.8	2.42
	140.0	380.3	2.32
	150.0	391.1	2.23
	160.0	401.8	2.16
	170.0	417.9	2.09
	180.0	423.3	2.03
	190.0	430.4	1.97
	200.0	439.4	1.24
	210.0	448.3	1.88
	220.0	455.5	1.84
	230.0	462.6	1.80
	240.0	469.8	1.77
	245.0	475.1	1.76
	250.0	478.7	1.74
	255.0	484.1	1.73
	260.0	487.7	1.71

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: WILDCAT

REC NO. 2088
DST NO. 5
DEPTH 4460

TIME - PRESSURE INCREMENTS

REMARKS	TIME MIN.	PRESSURE PSIG	T+DELTA(T)/ DELTA(T)
	265.0	494.8	1.70
	270.0	498.4	1.69
	275.0	500.2	1.67
	280.0	503.8	1.66
	285.0	507.3	1.65
	290.0	510.9	1.64
	295.0	514.5	1.63
SECOND SHUT-IN PRESSURE	300.0	516.3	1.62
PULLING OUT OF HOLE	0.	516.3	
FINAL HYDROSTATIC PRESSURE	1.0	2520.5	
	25.0	2520.5	
OUT OF HOLE	130.0	0.0	

WELL NAME: GULF MOBIL CARIBOU
WELL LOCATION: YTN25
FORMATION: WILDCAT
RECOVERY TYPE USED IN CALCULATIONS: MUD

REC NO. 2088
DST NO. 5
DEPTH 4460
INTERVAL 4530 - 4560
4610 - 4640

SUMMARY OF CALCULATIONS

1 FIRST SHUT-IN

EXTRAPOLATED FORMATION PRESSURE	892.1 PSIG
SLOPE OF EXTRAPOLATED LINE	4077.31 PSI/CYCLE
ROOT MEAN SQUARE DEVIATION OF FITTED LINE	3.59 PSI
NUMBER OF POINTS IN SHUT-IN	14
NUMBER OF POINTS USED FOR EXTRAPOLATION	5

2 SECOND SHUT-IN

EXTRAPOLATED FORMATION PRESSURE	737.6 PSIG
SLOPE OF EXTRAPOLATED LINE	1058.45 PSI/CYCLE
ROOT MEAN SQUARE DEVIATION OF FITTED LINE	0.45 PSI
NUMBER OF POINTS IN SHUT-IN	37
NUMBER OF POINTS USED FOR EXTRAPOLATION	4
DIFFERENCE (2ND-1ST EXTRAPOLATION)	-154.5 PSI

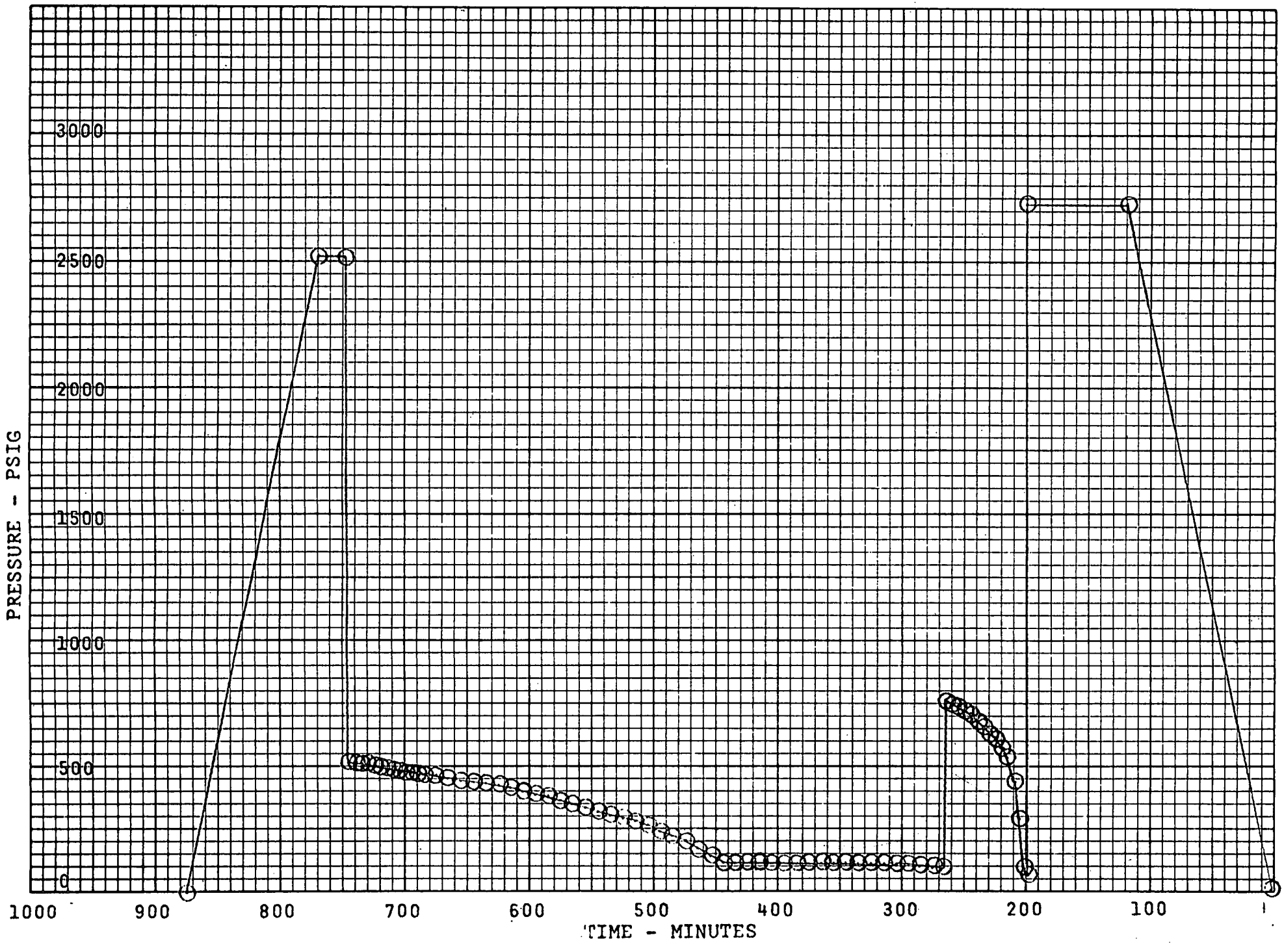
3 RESERVOIR AND FLUID PROPERTIES

NET PAY	60.00 FT
RESERVOIR POROSITY	5.00 PERCENT
PRODUCTION RATE	9.4 BPD
FORMATION VOLUME FACTOR	1.000 RB/STB
FLUID VISCOSITY	0.051 C.P.
TOTAL COMPRESSIBILITY X 10-6	9.500 /PSI
RESERVOIR TEMPERATURE	134.0 F
FINAL FLOWING PRESSURE	115.6 PSIG
TOTAL FLOW TIME	185.0 MIN

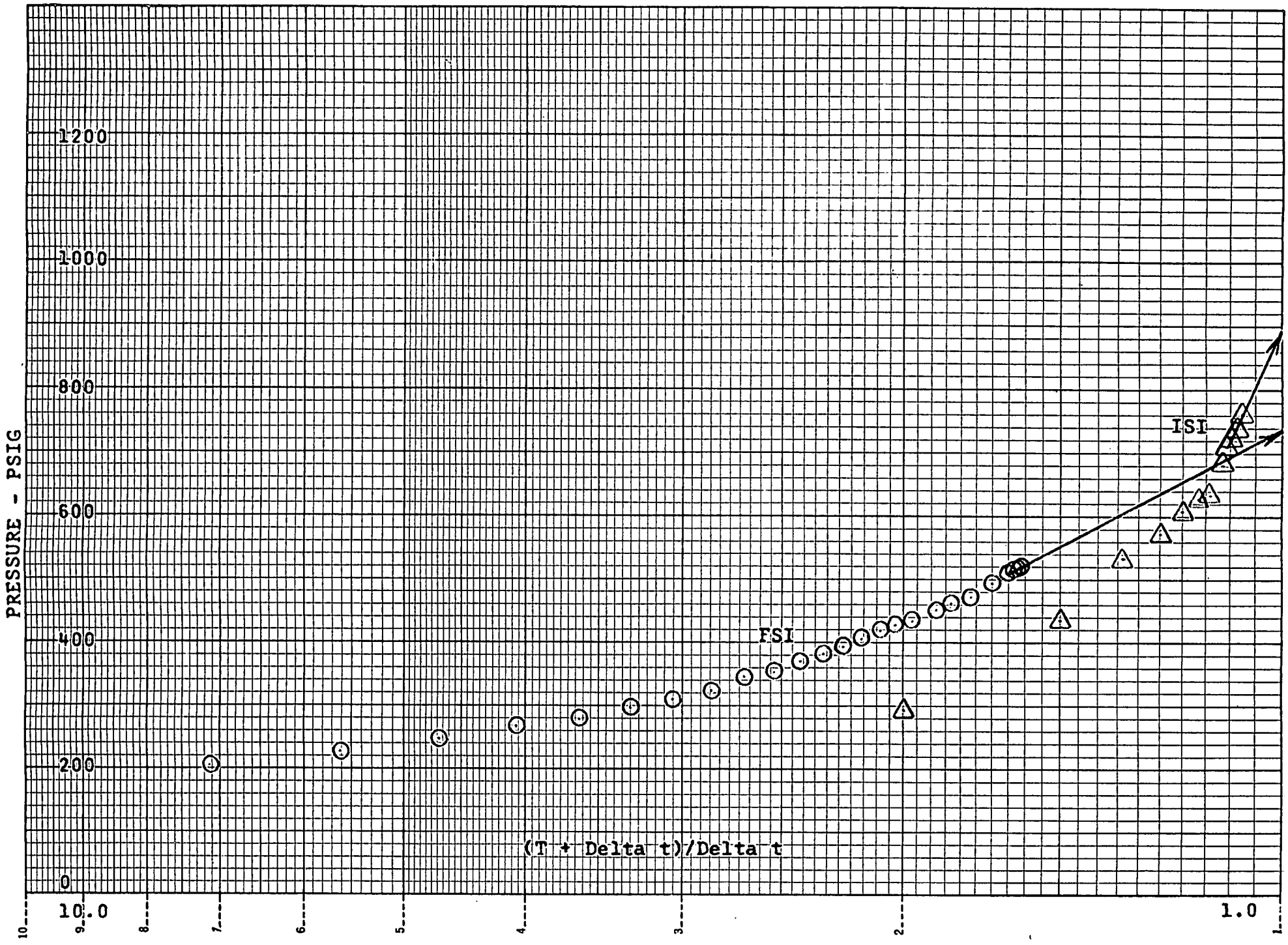
4 CALCULATION RESULTS

ESTIMATED DAMAGE RATIO	0.21
PERMEABILITY THICKNESS	0.1 MD FT
PERMEABILITY	0.00 MD
SKIN FACTOR	-2.50
APPROXIMATE DRAINAGE RADIUS	12.8 FT
PRODUCTIVITY INDEX	0.015 BPD/PSI

GULF MOBIL CARIBOU YTN 25 DST NO. 5 REC. NO. 2088

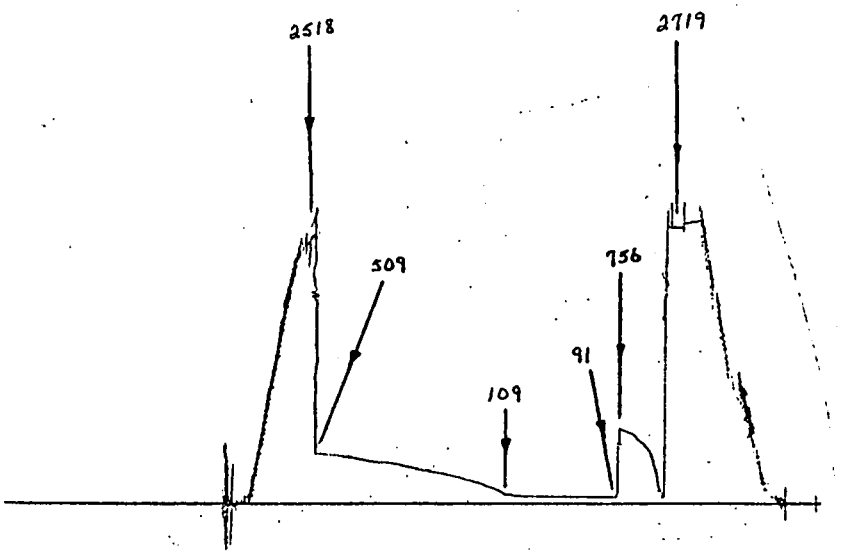


GULF MOBIL CARIBOU YTN 25 DST NO. 5 P* = 737.6 PSIG

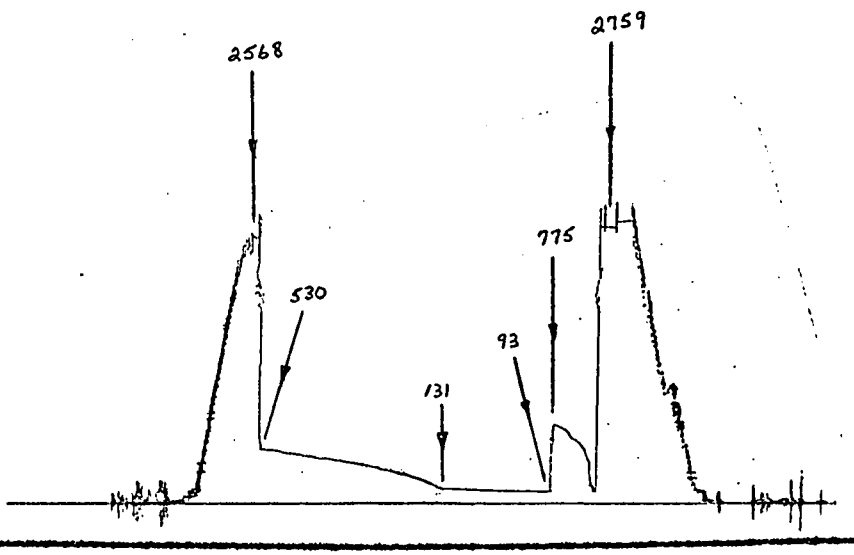


DST RECORDER CHARTS

GULF MOBIL CARIBOU YTN25
DST NO. 5
INSIDE REC. NO. 2088
DEPTH 4460

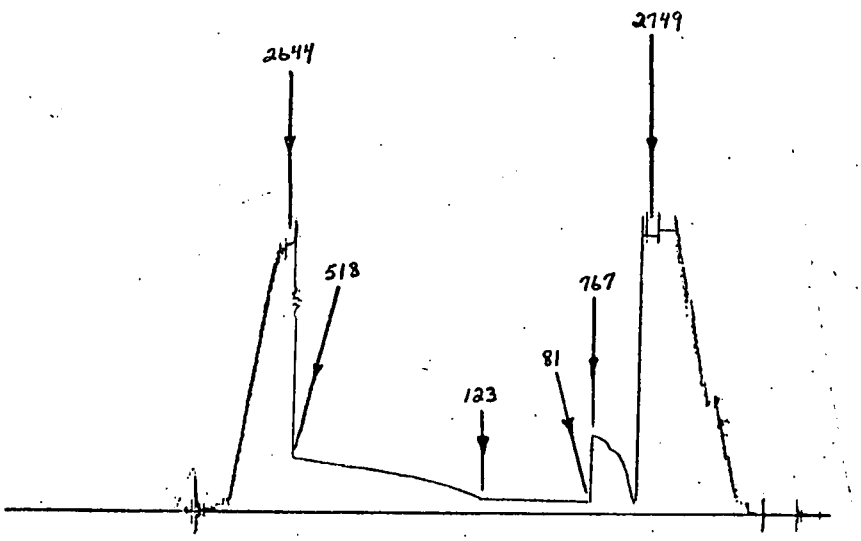


GULF MOBIL CARIBOU YTN25
DST NO. 5
OUTSIDE REC. NO. 2089
DEPTH 4510

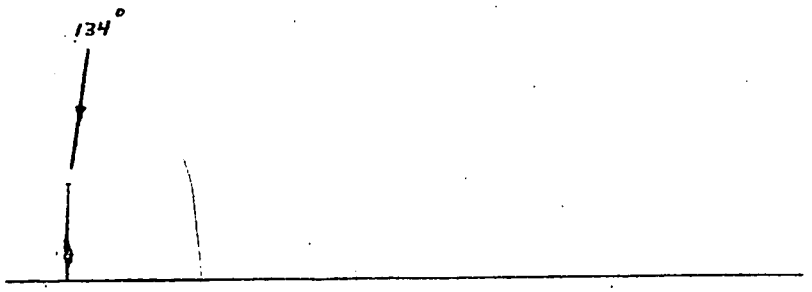


DST RECORDER CHARTS

GULF MOBIL CARIBOU YTN25
DST NO. 5
OUTSIDE REC. NO. 4366
DEPTH 4520



GULF MOBIL CARIBOU YTN25
DST NO. 5
TEMPERATURE REC. NO. 28570



The analysis of this test is based upon calculations of the data contained in this report. Some assumptions with regard to reservoir properties may have been made if the information was not supplied. The most up to date methods were utilized to determine the results, ensuring a complete and accurate report.

Any questions regarding the procedure or results should be directed to:

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