WELL HISTORY REPORT

INEXCO et al MALLARD YT 0-18

KANDIK BASIN

YUKON TERRITORY

September 25, 1972

Prepared by: H. H. Williams K. N. Sobkowich, P. Eng.

Signed:

S.N. Sodkowich.

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SECTION I

SUMMARY OF WELL DATA

- (a) INEXCO et al. MALLARD YT 0-18
- (b) Permittee, Licencee or Lessee: Inexco Oil Co. and Husky Oil Ltd.
- (c) Operator: Inexco Oil Company
 10th Floor, Aquitaine Tower
 540 5 Ave. S.W.
 Calgary 1, Alberta
- (d) Location: Grid: 65-50-140-15 U.W.I. 3000186550140150 U.W.L. 65.79944N, 140.29472W
- (e) Co-ordinates: 65°47'58" N, 140°17'41" W
- (f) Permit or Lease Number: 6000
- (g) Drilling Contractor: Commonwealth Rig 31
- (h) Drilling Authority: 598; April 12, 1972
- (i) Classification: Wildcat
- (j) K.B.: 3665 (estimated)
- (k) Spudded: 11:30 a.m., May 2, 1972
- (1) Completed Drilling: 7:20 p.m., August 13, 1972
- (m) Total Depth: 10,499
- (n) Well Status: Suspended Aug 19/72
- (o) Rig Released:
- (p) Hole Sizes: $17\frac{1}{2}$ " 0 961 $12\frac{1}{4}$ " 961 - 5563 $8\frac{1}{4}$ " 5563 - 10,499
- (q) Casing: (1) Ran 32 Jts. 959.82', 133'', K-55, 54.5# Casing.
 Landed at 956.82' K.B. with 240 sacs Fondu
 and 760 sacs Oilwell cement.
 Plug down @ 1:53 a.m., May 10, 1972.
 - (2) Ran 83 Jts. 3180: 95, K-55, 36 and 40# Casing. Landed at 3178: K.B. with 650 sacs Oilwell cement Plug down @ 8:00 a.m., July 21, 1972.

SECTION II

GFOLOGICAL SUMMARY

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Formation Tops

K.B. Elevation 36651 (est.)

Formation	Sample	E-Log	Datum
Hart River	Surface	Surface	+3665
Hart River	No Pick	≃1700	+1965
Hart River	6530	6550	- 2885
Unnamed Shale	9040	8950	- 5385
Unnamed Shale	9840	9790	-6125
Unnamed Shale	No Pick	10250	- 6 <i>5</i> 85

Cored Intervals

Diamond Core No.	Interval	<u>Formation</u>	Recovery
1	5695 - 5715	Hart River	181
2	68 <i>5</i> 2 - 6874	Hart River	221
3	7029 - 7053	Hart River	20.5
4	10475 - 10492	Unnamed Shale	71

WELL SYNOPSIS

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<u>Interval</u>	Formation	Faults	Comments
0 - 1700	Lower Hart River	1700*	Major fault thrusting Lower Hart River on Upper Hart River. Location of fault is only approximate.
1700 - 3400	Upper Hart River		
3400 - 6550	Lower Hart River	3650° 3900° 4700° 5200° 5450°	Lower Hart River section anomalously thickened by several small thrust faults. Unnamed Shale may be present near the base of this interval.
6550 - 8000	Upper Hart River	65001	Repeat section. Major fault thrusting Lower Hart River on Upper Hart River.
8000 - 8950	Lower Hart River		Section from 6550 to 9800 represents a complete unfaulted
8950 - 10,500	Unnamed Shale	98001 10,2501	Hart River - Unnamed Shale section. Fault at 9800 thrusts basal Unnamed Shale onto the top of the Unnamed Shale. Fault at 10250 repeats the top of the Unnamed Shale. T.D. in top of Unnamed Shale.

Note: Division of the Hart River Formation into an Upper and Lower member was arbitrary and based on the occurrence of a radioactive black shale. The division does not imply new stratigraphic nomenclature; it is used only for ease of illustrating formation repeats by thrust faulting.

CORE DESCRIPTIONS

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Diamond Core #1 5695 - 5715' Cut 20', Recovered 18'

Penetration Rate (mins/ft) 17, 23, 15, 15, 9, 9, 9, $8\frac{1}{2}$, 10, 13, 12, 12, 11, 11, 11, -, -, -

5695 - 5715' Shale - black, blocky, carbonaceous, calcareous, finely disseminated pyrite throughout, contorted bedding.

Core breaks @ ~35 - 45°.

Diamond Core #2 6852 - 6874 Cut 22', Recovered 22'

Penetration Rate (mins/ft) 22, 20, 23, 25, 18, 14, 18, 15, 16, 18, 15, 28, 18, 18, 19, 23, 29, 25, 30, 28, 48, 33

- 6852 6858: Shale dark grey-black, blocky, in part sub-fissile, hard, variably calcareous and siliceous, slightly carbonaceous, traces disseminated pyrite. No visible bedding. Fractures @ 35 45, filled with white calcite. Traces vertical tension gashes.
- 6858 6860: Shale as above, highly fractured and brecciated with calcite and pyrite filling fractures. Traces of sphalerite (?) and galena. Bedding highly contorted(?)
- 6860 6865' Shale dark grey to black, blocky, hard, siliceous.

 Abundant fine calcite filled fractures @ 90° to bedding (45 55°).
- 6865 6874: Shale dark grey to black, sub-fissile, variably calcareous, fractured as above @ 90° to bedding. Thin 6" limestone band at 6872 6872.6, light to medium grey, very fine crystalline, sandy, tight.

Diamond Core #3 7029 - 70521 Cut 231, Recovered 20.51

Penetration Rate (mins/ft) 19, 15, 20, 17, 6, 15, 18, 14, 16, 10, 26, 27, 25, 25, 20, 33, 27, 27, 21, 23, 28, 18, 18, 39

7029 - 7031.4 <u>limestone</u> - medium to dark grey, very fine crystalline to sucrosic, sandy, slightly argillaceous, massive. Strong H₂S odor.

7031.4-7033.91 Shale - dark grey to black, blocky, calcareous, trace pyrite, hard. Weak H₂S odor. Bedding @ 30 - 40 .

Occassional slickensides.

7033.9-7036' <u>Limestone</u> - as above.

7036 - 7042.41 Shale - as above with occasional thin (1") limestone stringer. Belling at 30 - 40°. Trace slickensides.

7042.4-7044.9: <u>Limestone</u> - medium to dark grey, very fine crystalline, very sandy, argillaceous, abundant stylolites.

7044.9-7048: Shale - as above. Trace fracturing. Bedding (?) @ 15°.

Trace slickensides.

7048 - 7050! <u>Limestone</u> - as above.

Diamond Core #4 10,475 - 10,492' Cut 17', Recovered 7'

Penetration Rate (mins/ft) 16 $(\frac{1}{2})$, 12, 24, 30, 23, 27, 28, 36, 23, 25, 17, 14, 39, 29, 34, 34, 39

10475-10492: Shale - dark grey - black, blocky, in part sub-fissile, very hard, siliceous, non-calcareous, pyritic, slightly carbonaceous. Fracture @ 45° and parrallel to bedding, in places very highly fractured and brecciated (lost core assumed highly fractured).

Abundant slickensides. Quartz and pyrite infill fractures. Bedding predominantly 45° with occassional bedding @ 10 - 15°.

SAMPLE DESCRIPTIONS

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40 - 50	Shale - black, sub-fissile to blocky, micro-micaceous, minor disseminated pyrite, abundant fractures filled with white calcite. Abundant igneous rock fragments.
50 - 60	Shale & Glacial Till - Shale as above. Approximately 50% varicolored igneous rock fragments.
60 - 70	Shale - black, sub-fissile, micro-micaceous, finely disseminated pyrite, hard, in part siliceous, trace calcite filled fractures.
70 - 80	Shale - as above, fissile, in part phyllitic.
80 - 90	Shale - as above.
90 - 100	Shale - black, fissile, micro-micaceous, trace phyllitic, hard, in part siliceous, minor disseminated pyrite, traces white calcite filled fractures.
100 - 140	Shale - as above.
140 - 150	Shale - as above, sub-fissile to blocky.
150 - 160	Shale - black, fissile, micro-micaceous to phyllitic, hard in part siliceous, in part carbonaceous, minor disseminated pyrite, traces white calcite filled fractures, very slightly calcareous to non-calcareous.
160 - 200	Shale - as above.
200 - 240	Shale - as above, becoming slightly calcareous.
240 - 250	Shale - as above, in part calcareous to only slightly calcareous.
250 - 270	Shale - as above.
270 - 280	Shale - as above, calcareous.
280 - 290	Shale - as above.
290 - 300	Shale - as above, abundant calcite filled fractures.

300 - 310	Shale - as above.
310 - 320	Shale - as above, white disseminated calcite throughout (secondary).
320 - 330	Shale - as above.
330 - 340	Shale - as above, abundant calcite filled fractures.
340 - 350	Shale - as above.
350 - 360	Shale - as above, in part carbonaceous.
360 - 370	Shale - as above.
370 - 380	Shale - as above, traces medium grey chert.
380 - 390	Shale - as above, traces medium buff limestone (cavings).
390 - 430	Shale - as above.
430 - 440	Shale - as above, increase in calcite filled fractures.
440 - 470	Shale - as above.
470 - 480	Shale - as above, trace slickensides.
480 - 490	Shale - as above.
490 - 500	Shale - as above, trace massive pyrite.
500 - 510	Shale - as above.
510 - 520	Shale - as above, increase in calcite filled fractures.
520 - 530	Shale - as above.
530 - 570	Shale - as above, very pyritic.
<i>5</i> 70 - <i>5</i> 80	Shale - dark grey and black, fissile to blocky, ashy leached appearance, micro-micaceous to phyllitic, abundant disseminated pyrite and white calcite, highly fractured.
<i>5</i> 80 - <i>5</i> 90	Shale - as above.
<i>5</i> 90 – 600	Shale - black, fissile, micro-micaceous to phyllitic, disseminated pyrite, calcareous in part fractured.
600 - 630	Shale - as above.

630 - 640	Shale - as above, very pyritic and highly fractured.
640 - 650	Shale - as above, in part very calcareous and blocky.
650 - 660	Shale - as above, occassional thin stringer limestone, dark grey to black, argillaceous, very fine crystalline.
660 - 670	Shale - as above, very pyritic, highly fractured, becoming increasingly blocky.
670 - 680	Shale - as above, highly fractured, cemented with calcite, very pyritic.
680 - 690	Shale - as above, slickensiding, fractured and in part finely brecciated.
690 - 730	<u>Shale</u> - as above.
730 - 810	Shale - black, fissile to sub-fissile, micro-micaceous to phyllitic, minor disseminated pyrite, abundant calcite filled fractures.
810 - 860	Shale - black, sub-fissile to blocky, micro-micaceous to slightly phyllitic, disseminated pyrite, abundant calcite filled fractures, secondary white disseminated calcite imparts a dark grey-black, blocky character to much of the shale.
860 - 870	Shale - as above, increasingly fractured and brecciated (very fine brecciation) with calcite cementing and infilling of fractures.
870 - 880	Shale - black, sub-fissile to blocky, micro-micaceous, in part phyllitic, disseminated pyrite, calcareous interbeds, fractured.
880 - 910	Shale - as above with calcareous interbeds.
910 - 950	Shale - as above with up to 20 - 30% calcareous and siliceous interbeds, grading to sandy limestone, medium-dark grey mottled, argillaceous, very fine crystalline.
950 - 960	Shale - black, fissile to sub-fissile, micro-micaceous, trace of blocky, calcareous black shale.
960 - 970	NO SAMPLE RETURNS

970 - 980	Shale - dark grey to black mottled, blocky, hard, siliceous, micro-micaceous, disseminated pyrite, cherty, slightly calcareous, traces white calcite filled fractures and thin limestone interbeds, medium to dark grey, silty to sandy, siliceous, argillaceous.
980 - 990	Shale - as above, increase in calcite filled fractures, in part very silty to sandy grading to sandstone.
990 - 1000	Shale - as above, highly fractured, increase in disseminated pyrite, minor very siliceous sandstone and very sandy limestone.
1000 - 1010	Shale - black, blocky, siliceous to fissile, micro-micaceous, and shale, dark grey to black, blocky, siliceous, cherty, very silty grading to siltstone, calcareous, fractured. Minor very calcareous, siliceous sandstone, very fine grained, medium grey, poorly sorted, cherty, tight.
1010 - 1020	Shale - dark grey to black, blocky, hard, siliceous, disseminated pyrite, in part very silty grading to calcareous siltstone. Abundant white calcite veinlets. Minor sandstone as above.
1020 - 1030	Shale - as above with thin calcareous and sandy interbeds.
1030 1040	Shale - as above and sandstone, medium to dark grey, fine grained, very calcareous. Minor thin calcareous interbeds and traces white vein calcite.
1040 - 1050	Shale - black, sub-fissile grading to blocky, in part siliceous, micro-micaceous grading to siltstone dark grey to black, sandy, siliceous, calcareous, in part very fine grained sandstone, tight.
1050 - 1060	Sandstone - medium to dark grey, very fine grained, poorly sorted, siliceous, hard, slightly calcareous, quartzitic, cherty, grading to siltstone, tight. Shale as above (~30%).
1060 - 1070	Sandstone - as above, tight, minor shale as above.
1070 - 1080	Sandstone - as above, tight, highly fractured, abundant white calcite veinlets, minor very silty shale.
1080 - 1090	Sandstone - as above, tight, minor siltsone, dark grey, blocky, sandy, slightly calcareous, grading to shale, as above. Abundant white calcite veinlets.

1090 - 1100		e - as above with interbedded siltstone grading to shale.
1100 - 1110	Sandston	<u>e - Siltstone - Shale</u> - as above interbedded. Abundant white calcite veinlets.
1110 - 1120		dark grey to black, blocky, micro-micaceous, silty grading to Siltstone, medium to dark grey, sandy, micaceous. Minor Sandstone as above. Abundant white calcite veinlets.
1120 - 1130	<u>Shale</u> -	as above. Minor Sandstone as above.
1130 - 1140	Shale -	as above. Minor calcareous Sandstone interbeds.
1140 - 1150		dark grey to black, blocky, silty, grading to Siltstone, micro-micaceous. Sandstone - medium to dark grey, very fine grained, silty, very calcareous. White calcite blebs.
1150 - 1160	Shale -	as above, in part calcareous. Trace very sandy calcareous interbeds.
1160 - 1180	Shale -	as above with minor calcareous siltstone and trace calcareous interbeds.
1180 - 1200	Shale -	as above, in part carbonaceous, grading to Siltstone, sandy, calcareous. Thin interbeds calcareous, very fine grained Sandstone.
1200 - 1210	Siltston	no - medium-dark grey to black, blocky, calcareous to dolomitic, micro-micaceous, siliceous, hard grading to very silty Shale. Trace Sandstone as above. Abundant fracturing with white calcite infill.
1210 - 1220	<u>Shale</u> -	dark grey to black, blocky slightly calcareous, in part siliceous, silty to very silty, grading to Siltstone, micro-micaceous. Minor Sandstone, very fine grained, silty, calcareous, tight.
1220 - 1230	<u>Shale</u> -	medium-dark grey to black, blocky, siliceous, slightly cherty, calcareous, micro-micaceous, traces disseminated pyrite, grading to sandy, siliceous Siltstone.
1230 - 1240	<u>Shale</u> -	as above.
1240 - 1250	<u>Shale</u> -	as above, in part sub-fissile.

1250 - 1260	Shale - Sandstone - Shale as above. Sandstone - medium grey, very fine grained to silty, poorly sorted, siliceous to calcareous, trace chert, micromicaceous, blocky, slightly carbonaceous, tight. Abundant white calcite blebs.
1260 - 1270	Sandstone - as above, carbonaceous, very calcareous, in part siliceous, trace gilsonite, trace white vein chert, fractured. Abundant Shale as above.
1270 - 1280	Sandstone - as above.
1280 - 1290	Shale - dark grey to black, sub-fissile to blocky, siliceous, in part calcareous, silty grading to very fine Siltstone. Sandstone as above, tight. Trace gilsonite. Trace calcareous interbeds.
1290 - 1300	Shale - Sandstone - as above. Sandstone very calcareous grading to minor, very sandy limestone stringers.
1300 - 1310	<u>Shale</u> - as above, blocky, siliceous, calcareous with Sandstone as above.
1310 - 1320	<u>Limestone</u> - light grey to white, mottled, coarse crystalline, crinoidal, slightly argillaceous. Minor Shale as above.
1320 - 1330	Limestone - medium to dark grey, mottled, coarse grained to crinoidal, slightly argillaceous. Shale-dark grey to black, sub-fissile, micro-micaceous, slightly carbonaceous.
1330 - 1340	Shale - as above (60 - 70%). Limestone - as above, slightly more argillaceous.
1340 - 1350	<u>Limestone</u> - light to medium grey, mottled, coarse crystalline, crinoidal, tight.
1350 - 1360	Limestone and Shale - medium grey, argillaceous to sandy limestone grading to dark grey to black, sub- fissile, micro-micaceous Shale with trace disseminated pyrite.
1360 - 1370	Shale - as above, slightly silty and in part siliceous, trace crinoid.
1370 - 1380	Shale - medium to dark grey, mottled, very silty, very calcareous in part, grading to very argillaceous Limestone.

1380 - 1390		dark grey to black, sub-fissile to blocky, micro- micaceous, in part slightly carbonaceous, siliceous, trace disseminated pyrite, trace crinoid (?) fragments.
1390 - 1470		as above, black, in part silty and calcareous, pyritic, hard, siliceous.
1470 - 1530		black, blocky, hard, siliceous, in part silty to slightly calcareous, micro-micaceous. Trace calcareous interbeds, trace white vein calcite.
1 <i>5</i> 30 - 1 <i>5</i> 50	1	as above, in part fissile and carbonaceous, disseminated pyrite and pyrite occassionally filling fractures.
1550 - 1560	<u>Shale</u> -	as above with minor fissile, very carbonaceous Shale. Heavily fractured with abundant calcite veinlets. Minor Sandstone, medium grey, very fine grained to silty, slightly calcareous, hard, siliceous.
1 <i>5</i> 60 - 1 <i>5</i> 70	<u>Shale</u> -	as above, trace gilsonite in fractures, pyritic, abundant white calcite crystals and veinlets.
1 <i>5</i> 70 - 1600	Shale -	black, sub-fissile to blocky, micro-micaceous, trace disseminated pyrite, slightly silty, in part carbonaceous, fractured. Abundant white calcite crystals and veinlets. Trace Sandstone at 1600.
1600 - 1610	<u>Shale</u> -	black, fissile to sub-fissile, micro-micaceous, disseminated pyrite, carbonaceous, in part siliceous. Abundant calcite veinlets and calcite blebs. Occassionly white quartz filling fractures with associated pyrite.
1610 - 1650	<u>Shale</u> -	as above, fissile, abundant white calcite veinlets, very pyritic, non-siliceous.
1650 - 1700	<u>Shale</u> -	black, fissile, micro-micaceous, very pyritic, carbonaceous, abundant blebs and veinlets of white calcite. Shale has a bronze "phyllitic" sheen.
1700 - 1780	Shale -	black, fissile, micro-micaceous, carbonaceous, very pyritic. Occassional thin sandy calcareous stringer.

1780 - 1800	Shale - as above and Limestone, medium grey, mottled, aphanitic, argillaceous, siliceous, dolomitic (?).
1800 - 1820	Shale - dark grey to black, fissile to blocky, micro- micaceous, carbonaceous, pyritic, in part hard, siliceous, with calcareous interbeds. Abundant white calcite blebs and veinlets.
1820 - 1840	Shale - as above, with minor calcareous interbeds, in part siliceous.
1840 - 1850	Shale - dark grey-bronze to black, sub-fissile to fissile, micro-micaceous, carbonaceous, disseminated pyrite. Minor calcareous and siliceous interbeds.
18 <i>5</i> 0 - 1860	Shale - as above, very poor sample. Trip @ 1856.
1860 - 1870	Shale - as above, very heavily fractured - filled with white calcite and quartz. Thin siliceous interbeds.
1870 - 1880	Shale - black, fissile, micro-micaceous, pyritic, carbonaceous.
1880 - 1890	Shale - as above with abundant siliceous and calcareous interbeds.
1890 - 1900	Shale - as above. ~20% very calcareous, silty shaley interbeds.
1900 - 1910	Shale - as above, minor calcareous, shaley interbeds.
1910 - 1920	Shale - as above.
1920 - 1930	Shale - black, fissile, as above amd blocky, siliceous.
1930 - 1950	Shale - black, fissile, micro-micaceous, pyritic, carbonaceous.
1950 - 2000	Shale - dark grey to black, fissile, micro-micaceous, pyritic, carbonaceous. Trace calcareous interbeds at 1960.
2000 - 2010	Shale - dark grey to black, blocky to fissile, calcareous.
2010 - 2040	Shale - dark grey to black, fissile to sub-fissile, carbonaceous, minor disseminated pyrite, in part clacareous, blocky. Occassional thin calcareous, silty interbeds.

2040 - 2060	Shale -	dark grey to black, sub-fissile, non-calcareous to blocky calcareous, micro-micaceous, carbonaceous, pyritic. Trace medium grey, silty, very calcareous Shale.
2060 - 2080	Shale -	dark grey to black, sub-fissile, micro-micaceous, clacareous to very calcareous, carbonaceous, minor disseminated pyrite.
2080 - 2090	<u>Shale</u> -	as above, non-calcareous to calcareous in part. Becoming siliceous.
2090 - 2100	Shale -	dark grey to black, blocky, hard, siliceous, micro-micaceous, in part carbonaceous, minor disseminated pyrite, Minor calcareous Shale.
2100 - 2110	<u>Shale</u> -	as above, sub-fissile to blocky, calcareous, pyritic.
2110 - 2120	<u>Shale</u> -	dark grey to black, sub-fissile to blocky, calcareous, micro-micaceous, in part carbonaceous, minor disseminated pyrite.
2120 - 2150	<u>Shale</u> -	dark grey, blocky, minor disseminated pyrite, very calcareous.
2150 - 2160	Shale -	dark grey to black, sub-fissile, only slightly calcareous, micro-micaceous, pyritic, carbonaceous.
2160 - 2170	<u>Shale</u> -	dark grey to black, fissile to blocky, non- calcareous to slightly calcareous, micro-micaceous, slightly carbonaceous, minor disseminated pyrite, in part siliceous, fractured, fractures filled with calcite and quartz. Trace light grey chert.
2170 - 2180	<u>Shale</u> -	as above, variably calcareous, slightly fractured.
2180 - 2200	Shale -	black, sub-fissile, micro-micaceous, minor disseminated pyrite, slightly calcareous, in part carbonaceous.
2200 - 2210	Shale -	as above, abundant calcite filled fractures.
2210 - 2220	Shale -	as above, non-calcareous, minor fracturing.
2220 - 2240	<u>Shale</u> -	black, fissile to sub-fissile, micro-micaceous, minor disseminated pyrite, carbonaceous, in part siliceous.

2240 - 2280	Shale - as above, slightly calcareous to calcareous, becoming sub-fissile to blocky.
2280 - 2320	Shale - as above, variably calcareous to non-calcareous, pyritic, occassional silty interbeds.
2320 - 2330	Shale - as above, very calcareous.
2330 - 2340	Shale - dark grey to black, sub-fissile, micro-micaceous, slightly carbonaceous, minor disseminated pyrite, very calcareous, in part siliceous.
2340 - 2360	Shale - as above, slightly calcareous.
2360 - 2370	Shale - dark grey to black, sub-fissile to blocky, micro-micaceous, minor disseminated pyrite, very calcareous, in part siliceous.
2370 - 2390	Shale - black, sub-fissile to fissile, micro-micaceous, minor disseminated pyrite, carbonaceous, slightly calcareous, in part siliceous.
2390 - 2400	Shale - as above, slightly calcareous, siliceous.
2400 - 2410	Shale - as above, calcareous. Minor Limestone - dark grey, mottled, very argillaceous, silty grading to Shale - very silty and calcareous.
2410 - 2420	Shale - as above, very calcareous, grading to very silty, calcareous Shale. Minor argillaceous Limestone interbeds.
2420 - 2430	Shale - as above.
2430 - 2440	Shale - dark grey, sub-fissile to blocky, micro-micaceous, very calcareous, in part carbonaceous. Minor very argillaceous limestone interbeds.
2440 - 2450	Shale - as above.
2450 - 2460	Shale - as above, minor limestone interbeds as above.
2460 - 2470	Shale - as above with Limestone interbeds - medium grey, mottled, fine to medium crystalline, crinoidal (?), argillaceous to very argillaceous, tight.
2470 - 2480	Shale - as above with limestone interbeds as above.

2480 - 2490	<u>Limestone</u> - medium grey, mottled, fine crystalline, argillaceous, slightly dolomitic, trace floating quartz grains, tight. Minor Shale as above.
2490 - 2500	<u>Limestone</u> - as above, in part siliceous, tight. Minor Shale as above. Trace crinoid fragments.
2500 - 2510	Limestone - as above grading to Shale - dark grey to black, very calcareous, abundant crinoid ossicles.
2510 - 2520	Limestone - medium to dark grey, mottled, very fine crystalline, argillaceous to very argillaceous, traces light grey chert, very fossiliferous (crinoid ossicles), in part crinoidal. Shale - dark grey, calcareous, blocky, fossiliferous.
2520 - 2530	<u>limestone</u> - as above and Shale - dark grey, blocky, calcareous, trace fracturing.
2530 - 2540	Shale - dark grey, blocky, calcareous to very calcareous, slightly micro-micaceous. Trace limestone as above. Trace fractures filled with calcite.
2540 - 2550	Shale - as above, becoming slightly darker, minor disseminated pyrite. Trace calcareous interbeds.
2550 - 2560	Shale - dark grey to black, blocky, micro-micaceous, calcareous, minor disseminated pyrite, slightly carbonaceous.
2560 - 2570	Shale - as above, trace calcareous interbeds.
2570 - 2580	Shale - as above in part grading to very srgillaceous Limestone.
2580 - 2590	Shale - as above, very calcareous, Minor Limestone - medium to dark grey, argillaceous, carbonaceous, very fine crystalline.
2 <i>5</i> 90 - 2600	Shale - dark grey, blocky, very calcareous, slightly carbonaceous, Minor interbedded Limestone - very dark grey, argillaceous.
2600 - 2610	Shale - as above, with minor interbedded limestone and thin sardy siliceous, calcareous interbeds.
2610 - 2620	<u>limestone</u> - medium grey, aphanitic to very fine crystalline slightly argillaceous, trace floating quartz.

Shale - dark grey, blocky, very calcareous. Abundant white vein calcite.

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2620 - 2630	Shale ar	nd <u>limestone</u> - as above. Quartzite - medium grey, siliceous, slightly calcareous, cherty.
2630 - 2640	<u>Shale</u> -	as above. Limestone - as above, very siliceous to quartzitic.
2640 - 2650	Shale -	dark grey to black, sub-fissile, micro-micaceous, carbonaceous. Thin limestone interbeds as above. Thin siliceous interbeds.
2650 - 2660	Shale -	black, fissile to sub-fissile, micro-micaceous, carbonaceous, only slightly calcareous. Trace siliceous limestone.
2660 - 2700	<u>Shale</u> -	as above.
2700 - 2760	<u>Shale</u> -	as above and Limestone - medium grey, mottled, very fine crystalline, siliceous, argillaceous, in part sandy, tight. Minor very siliceous interbeds.
2760 - 2790	<u>Shale</u> -	dark grey, sub-fissile to blocky, calcareous, micro-micaceous, slightly carbonaceous. Minor Limestone as above, grading to very calcareous Shale.
2790 - 2810	<u>Shale</u> -	as above, in part very calcareous. Limestone as above up to 30%.
2810 - 2820	Shale -	dark grey to black, sub-fissile to blocky, calcareous, micro-micaceous, slightly calcareous to calcareous.
2820 - 2860	<u>Shale</u> -	as above. Trace Limestone interbeds.
2860 - 2870	<u>Shale</u> -	as above. Minor calcareous interbeds.
2870 - 2880	<u>Shale</u> -	as above witk~30% interbedded siliceous Limestone.
2880 - 2890	Shale -	as above and Limestone - light grey to medium grey, mottled, very fine crystalline, in part argillaceous, very siliceous, traces grey chert, in part sandy.
2890 - 2900	<u>Shale</u> -	as above and limestone as above, very siliceous, very sandy grading to very calcareous sandstone.

2900 - 2910	<u>Limestone</u> - as above grading to very calcareous Shale and very calcareous Sandstone.
2910 - 2920	Shale - as above, calcareous and silty. Sandstone - as above, grading to sandy Limestone as above.
2920 - 2930	Limestone - Sandstone with ≃20 - 30% Shale as above.
2930 - 2940	<u>Limestone</u> - as above and Sandstone - medium grey, very fine grained to silty, very calcareous grading to very silty, sandy Limestone. Minor to 30% Shale - dark grey to black, sub-fissile, micromicaceous. Fractured - white quartz and calcite infill.
2940 - 2950	Sandstone - as above, grading to siliceous Siltstone. Shale - medium grey, siliceous, blocky, slightly calcareous.
2950 - 2960	Sandstone - as above, becoming very silty to Siltstone, calcareous to very calcareous. Shale - medium to dark grey, calcareous, in part siliceous, abundant dark grey chert.
2960 - 2970	Shale - dark grey to black, sub-fissile to fissile, micro-micaceous, carbonaceous, slightly calcareous. Siltstone - Sandstone as above, up to 30%. Fairly abundant calcite filled fractures.
2970 - 2980	Shale - as above =40%. Limestone - medium grey, very fine crystalline, very siliceous and silty, slightly argillaceous, grading to very calcareous Siltstone as above, tight. Trace crinoids.
2980 - 2990	<u>limestone</u> - light to medium grey, aphanitic with minor fine crystalline crinoidal, very silty, in part grading to calcareous, siliceous Siltstone, slightly argillaceous, trace floating quartz grains, occassional crinoid fragment. Shale - as above.
2990 - 3000	Shale - medium to dark grey - black, sub-fissile, silty, calcareous, micro-micaceous. Limestone - as above.
3000 - 3010	Limestone - light to medium grey, micro-crystalline, slightly argillaceous, in part silty. Shale (40%) medium to dark grey, blocky, calcareous, micro-micaceous.

3010 - 3060	<u>Limestone</u> - as above, trace indistinct crinoid fragments. Shale as above (≃20 - 30% interbeds).
3060 - 3090	Shale - medium to dark grey - black, blocky, calcareous, in part micro-micaceous, grading to argillaceous Limestone. Limestone (~30%) as above.
3090 - 3100	<u>Limestone</u> - light to medium grey, mottled, micro to very fine crystalline, slightly argillaceous, slightly silty, in part crinoidal (poorly preserved) grading to calcareous Shale (30%) as above. Traces dark grey chert.
3100 - 3110	POOR SAMPLE <u>Limestone</u> - as above becoming very siliceous. Shale - dak grey to black, blocky, micro-micaceous, only slightly calcareous, in part siliceous. Abundant dark grey to black chert.
3110 - 3120	Shale - as above, siliceous and cherty with abundant siliceous and calcareous interbeds. Minor siliceous Limestone interbeds.
3120 - 3130	Shale - as above and Chert - medium grey. Abundant siliceous interbeds. Minor very silty Limestone interbeds.
3130 - 3140	Shale - black, sub-fissile to blocky, micro-micaceous, in part siliceous, carbonaceous, only slightly calcareous. Abundant white calcite crystals - vein filling. Gas Show - 0.08% Methane; shale gas. Trace calcareous interbeds (cavings?).
3140 - 3150	Shale - dark grey to black, blocky, siliceous, hard, micro-micaceous, slightly calcareous in part. Moderate amounts dark grey chert and siliceous interbeds. Minor very calcareous interbeds.
3150 - 3160	Shale and Chert - as above, minor sandy, slightly calcareous, siliceous interbeds.
3160 - 3170	Shale and Chert - as above, Moderate amounts calcareous, silty Sandstone (cavings?)
3170 - 3180	<u>limestone</u> - light to medium grey, mottled, microcrystalline, slightly argillaceous, silty to very silty, tight, grading to calcareous Siltstone, very cherty (medium grey). Minor siliceous interbeds. Trace crinoid fragments. Minor Shale as above.

3180 - 3190	Shale - bla	ck, fissile, micro-micaceous, carbonaceous.
3190 - 3200	mi.c qua	rk grey, blocky, hard, siliceous, in part cro-micaceous, ard Chert - dark grey. ~20-30% artzite. Minor black Shale as above. Trace destone as above.
3200 - 3220	aph	above and Quartzite - medium grey-brown, anitic, Chert - as above. Trace silty Limestone above.
3220 - 3230		ack, fissile, carbonaceous and Shale - as above. Bert and Quartzite - as above.
3230 - 3250		· as above with Limestone - as above. Minor iceous Shale and Chert.
3250 - 3260	sli	ack, sub-fissile, micro-micaceous, carbonaceous, ghtly calcareous. Traces Chert, Quartzite, limestone - as above.
3260 - 3270	mi.c	rk grey to black, blocky, siliceous, micro- caceous. Abundant Chert and Quartzite. ~20% ry silty Limestone grading to calcareous ltstone as above.
3270 - 3280	car	ck, siliceous, blocky, in part fissile and rbonaceous, slightly calcareous, micro-micaceous. undant Chert and Quartzite as above.
3280 - 3290	mic	ack, sub-fissile to fissile, carbonaceous, cro-micaceous, slightly calcareous. Trace lcareous interbeds.
3290 - 3300		rk grey, blocky, siliceous, micro-micaceous, erty. Minor Quartzite.
3300 - 3310		above, cherty. Minor Quartzite. Occassional in calcareous interbeds.
3310 - 3320	Abı vez	Chert - as above. ~20% Quartzite as above. undant Limestone - very light to medium grey, ry silty grading to Silstone, micro-crystalline, ght.
3320 - 3330	in	rk grey to black, blocky, slightly calcareous, part siliceous. Trace quartzite, chert and lcareous interbeds.

3330 - 3 340	Shale - dark grey and black, blocky to fissile, carbonaceous, slightly calcareous, in part siliceous, micromicaceous. Minor calcareous siltstone grading to very silty limestone. Fractured - cabundant white vein calcite.
3340 - 33 <i>5</i> 0	Shale - as above and Limestone - light - medium grey, mottled, micro-crystalline, silty, grading to very calcareous Siltstone. Abundant white vein calcite - fractures.
33 <i>5</i> 0 - 3360	Shale - dark grey to black, sub-fissile to blocky, carbonaceous. Sandstone - light grey-brown, very fine grained, calcareous, hard, siliceous, in part quartzitic. Abundant white vein calcite.
3360 - 3370	Shale and Quartzite - as above. Abundant dark grey chert. Abundant white vein calcite with minor white quartz.
3370 - 3380	Shale - dark grey to black, blocky, siliceous, cherty. Minor amounts light gro, calcareous Siltstone. Very abundant white quartz and calcite veinlets.
3380 - 3390	Shale - medium grey, calcareous, blocky to platy, in part very calcareous with minor interbedded Siltstone - light grey, calcareous. Limestone - medium grey, micro-crystalline, argillaceous grading to calcareous Shale.
3390 - 3400	<u>Shale</u> - in part very calcareous and in part very siliceous. Abundant calcareous Siltstone as above.
3400 - 3410	Shale - dark grey to black, sub-fissile to fissile, carbonaceous and blocky calcareous. Abundant dark grey chert. Traces Siltstone as above.
3410 - 3420	Shale - black, sub-fissile to fissile, carbonaceous, slightly calcareous, medium soft, micro-micaceous, minor disseminated pyrite.
3420 - 3460	Shale - as above, fissile, non-calcareous, pyritic.
3460 - 3600	Shale - black (medium bronze-black sheen), fissile, carbonaceous, non-calcareous, minor disseminated pyrite, medium soft, micro-micaceous.
3600 - 3630	Shale - as above.

3630 - 36 <i>5</i> 0	<u>Shale</u> -	dark grey to black, fissile to sub-fissile, slightly carbonaceous, non-calcareous, pyritic, micro-micaceous. Trace chalcopyrite @ 3650.
3650 - 3700	<u>Shale</u> -	black, fissile to sub-fissile, carbonaceous, pyritic, non-calcareous, becoming slightly siliceous, micro-micaceous.
3700 - 3710	<u>Shale</u> -	black, blocky to sub-fissile, carbonaceous, in part slightly calcareous, pyritic, in part slightly silty, siliceous. Minor calcareous and siliceous interbeds.
3710 - 3720	Shale -	as above. Occassional thin calcareous and siliceous interbeds.
3720 - 3770	<u>Shale</u> -	dark grey to black, blocky, silty, calcareous, micro-micaceous, pyritic, in part slightly carbonaceous. Trace very calcareous interbeds.
3770 - 3810	Shale -	black, fissile to sub-fissile, carbonaceous, non-calcareous, micro-micaceous, trace pyrite. Minor white calcite and quartz in fractures @ 3810.
3810 - 3840	<u>Shale</u> -	dark grey to black, blocky to sub-fissile, micro-micaceous, in part slightly carbonaceous, trace pyrite. Trace calcareous interbeds. Abundant white vein quartz. Becoming silty @ 3830.
3840 - 3930	<u>Shale</u> -	dark grey to black, blocky, silty, slightly siliceous, micro-micaceous, slightly carbonaceous, traces disseminated pyrite, fractures filled with white calcite and quartz.
3930 - 3960	<u>Shale</u> -	as above, minor fracturing, very silty, calcareous.
3960 -4120	Shale -	dark grey-black, blocky, silty, micro-micaceous, slightly calcareous, siliceous, hard, minor disseminated pyrite.
4120 - 4220	Shale -	as above, becoming less silty, and minor Shale - bloak, sub-fissile, carbonaceous, micro-micaceous.
4220 - 4290	Shale -	dark grey, blocky, silty, slightly siliceous, micaceous, slightly calcareous.
4290 - 4300	<u>Shale</u> -	dark grey, sub-fissile, micro-micaceous, medium soft, slightly calcareous.

4300 - 4330	Shale - dark grey, subfissile, pyritic. Shale - black, fissile, carbonaceous, micro-micaceous, only slightly calcareous, medium soft. Occassional thin calcareous, sandy interbeds.
4330 - 4420	Shale - dark grey to black, sub-fissile to blocky, in part carbonaceous, slightly to non-calcareous, micro-micaceous, trace disseminated pyrite, cedium soft.
4420 - 4430	POOR SAMPLE - TRIP @ 4426. Shale - dark grey to black, blocky to sub-fissile, carbonaceous, slightly silty in part, micro-micaceous, trace disseminated pyrite, slightly to non-calcareous.
4430 -4460	Shale - dark grey to black, sub-fissile to blocky, micro-micaceous, slightly carbonaceous, non-calcareous, trace disseminated pyrite, medium soft to medium hard. Becoming slightly silty.
4460 - 4500	Shale - as above, becoming slightly silty and increasingly calcareous. Minor thin calcareous and quartzitic interbeds.
4500 - 4510	POOR SAMPLE TRIP @ 4511. Shale - as above with minor calcareous Quartzite as above.
4510 - 4540	Shale - dark grey to black, sub-fissile, carbonaceous, non-calcareous, micro-micaceous, trace disseminated pyrite, medium hard. Minor calcareous Sandstone interbeds @ 4520 - 4530.
4 <i>5</i> 40 - 4550	Shale - as above. Trace fracturing with trace hematite staining. Trace Quartzite interbeds.
4550 - 4560	Shale - as above and Shale - carbonaceous, micro-micaceous, slightly calcareous to siliceous, hard, slightly silty.
4 <i>5</i> 60 - 4590	Shale - dark grey to black, blocky, silty, slightly calcareous, trace carbonaceous, medium hard. Minor black fissile shale.
4590 - 4650	Shale - as above and Shale - black, sub-fissile, micro- micaceous, pyritic, carbonaceous, medium soft. Occassional trace calcareous Quartzite.

4690 - 4700	Shale - as above, slightly silty and slightly siliceous.
4700 - 4790	Shale - black, sub-fissile to blocky, carbonaceous, in part silty and slightly siliceous, medium hard, pyritic, micro-micaceous, in part slightly calcareous.
4790 - 4820	Shale - dark grey to black, sub-fissile to blocky, medium hard, in part carbonaceous, pyritic, micromicaceous, in part silty, slightly calcareous. Trace thin calcareous, sandy interbeds.
4820 - 4870	Shale - dark grey-black, blocky to sub-fissile, slightly silty and calcareous, in part carbonaceous and pyritic, micro-micaceous, medium hard. Slightly siliceous in places.
4870 - 4890	<u>Shale</u> - dark grey to black, fissile to sub-fissile, micro-micaceous, pyritic, carbonaceous, trace fractures.
4890 - 4920	Shale - dark grey to black, blocky to sub-fissile, silty, slightly calcareous, siliceous, micro-micaceous, trace disseminated pyrite, in part slightly carbonaceous, medium hard to hard.
4920 - 5000	Shale - as above, becoming sub-fissile, carbonaceous and less siliceous. Trace white vein calcite. Occassional thin sandy, calcareous interbed.
5000 - 5070	Shale - dark grey to black, blocky to sub-fissile, micro- micaceous, in part carbonaceous, slightly calcareous, trace disseminated pyrite, in part siliceous, medium hard to hard. Occassional thin calcareous interbed. Slickensides?
5070 - 5140	Shale - dark grey-black, blocky, siliceous, hard, slightly calcareous, micro-micaceous, trace disseminated pyrite, in part slightly carbonaceous.
5140 - 5170	Shale - dark grey, blocky, siliceous, hard, slightly calcareous, micro-micaceous, trace disseminated pyrite, in part slightly carbonaceous.
5170 - 5230	Shale - as above, becoming increasingly carbonaceous and slightly less siliceous. In part subfissile and medium soft.

5230 - 5260		dark grey to black, blocky to sub-fissile, medium hard, carbonaceous, pyritic, micro-micaceous, in part calcareous, trace fracturing with traces chalcopyrite, in part siliceous.
5260 - 5320	<u>Shale</u> -	dark grey to black, blocky, siliceous, hard, slightly pyritic, micro-micaceous. Minor sub-fissile, carbonaceous shale.
<i>5</i> 320 - <i>5</i> 330	Shale -	as above.
<i>5</i> 330 - <i>5</i> 440	<u>Shale</u> -	dark grey to black, blocky to sub-fissile, carbonaceous, micro-micaceous, slightly calcareous, trace disseminated pyrite, medium soft. In part siliceous. Trace fracturing.
5440 - 5470	Shale -	as above, with a slightly silty texture.
<i>54</i> 70 - <i>5</i> 480	<u>Shale</u> -	dark grey to black, sub-fissile, calcareous, carbonaceous, trace disseminated pyrite, micro-micaceous, medium soft to medium hard.
5480 - 5560	<u>Shalo</u> -	dark gray to black, blocky, variably siliceous and hard to medium, slightly calcareous, carbonaceous, micro-micaceous, trace disseminated pyrite. Occassional thin calcareous interbeds.
5560 - 5630	<u>Shale</u> -	as above, calcareous. Occassional thin calcareous, sandy interbeds.
<i>5</i> 630 - <i>5</i> 640	<u>Shale</u> -	dark grey to black, sub-fissile, carbonaceous, calcareous to slightly calcareous, medium soft, pyritic, micro-micaceous. Occassional thin calcareous Sandstone interbeds.
5640 - 5690	<u>Shale</u> -	dark grey to black, sub-fissile, carbonaceous, only slightly calcareous, pyritic, micro-micaceous, medium soft. Occassional trace Quartzite as above.
<i>5</i> 690 - <i>5</i> 700	NO SAMP	LE.
<i>5</i> 695 - <i>5</i> 715	DIAMOND	CORE #1, Recovered 18:. Shale - black as above.
5730 - 5740	<u>Shale</u> -	dark grey to black, blocky to sub-fissile, carbonaceous, pyritic, micro-micaceous, slightly calcareous, trace fracturing and trace Quartzite as above.

5740 - 5800	Shale - dark grey to black, fissile, micro-micaceous, carbonaceous, pyritic, calcareous to slightly calcareous.
5800 - 5910	Shale - black, as above, non-calcareous. Occassional trace calcareous Quartzite, increasingly carbonaceous, minor white vein calcite.
<i>5</i> 910 - 6000	Shale - dark grey to black, as above becoming sub- fissile to blocky.
6000 - 6130	Shale - black, fissile to sub-fissile, carbonaceous, disseminated pyrite, micro-micaceous, medium hard.
6130 - 6140	Shale - as above, with minor trace hematite staining.
6140 - 6200	Shale - dark grey to black, fissile, carbonaceous, pyritic, micro-micaceous. Trace calcareous Quartzite and fracturing.
6200 - 6240	Shale - as above, very abundant white calcite and quartz. Fractured, trace light grey chert. Thin calcareous Sandstone interbeds, light grey, very fine grained, tight.
6240 - 6340	Shale - dark grey to black, carbonaceous, sub-fissile to fissile, disseminated pyrite, micro-micaceous. Trace fracturing and white vein calcite.
6340 - 6350	Shale - as above, and Limestone (30%) - medium grey, mottled, coarse crystalline, slightly argillaceous, abundant crinoid fragments, sandy with floating quartz grains. Abundant clacareous Quartzite.
6350 - 6360	Shale am Limestone (50%) - as above.
6360 - 6370	Shale - as above with ≃20% Limestone and Quartzite as above.
6370 - 6400	Shale - dark grey to black, sub-fissile, carbonaceous, minor disseminated pyrite, micro-micaceous, slightly to non-calcareous. Trace limestone as above.
6400 - 6460	Shale - dark grey to black, sub-fissile, carbonaceous, slightly calcareous, disseminated pyrite, micromicaceous.

6460 - 6 <i>5</i> 30	<u>Shale</u> -	as above, becoming increasingly calcareous @6460. Occassional thin calcareous quartzite stringer.
6530 - 6540	<u>Shale</u> -	as above and Sandstone - light to medium grey, very fine grained, sub-angular, poorly sorted, very calcareous, grading to very sandy limestone, tight.
6540 - 6550	Shele -	as above (50%) and Sandstone - as above with minor sandy Limestone interbeds.
6550 - 6560	Shale -	dark grey to black, sub-fissile, non-calcareous, carbonaceous, micro-micaceous, minor disseminated pyrite. Minor Sandstone as above (30%).
6 <i>5</i> 60 - 6 <i>5</i> 70	<u>Shale</u> -	as above with Sandstone (30%) - as above.
6 <i>5</i> 70 - 6 <i>5</i> 80	<u>Quartzi</u>	te - light grey, very fine grained to silt size, very hard, pyritic, in part slightly calcareous. Shale (~30%) - as above.
6 <i>5</i> 80 - 6600	Shale -	dark grey to black, sub-fissile to blocky, minor disseminated pyrite throughout, slightly calcareous, in part slightly siliceous, carbonaceous. Minor Quartzite as above.
6600 - 6760	<u>Shale</u> -	as above.
6760 - 6780	<u>Shale</u> -	dark grey, blocky to sub-fissile, calcareous, micro-micaceous, slightly carbonaceous, trace disseminated pyrite.
6780 - 6800	<u>Shale</u> -	dark grey-black, blocky to sub-fissile, slightly calcareous, trace disseminated pyrite.
6800 - 6820	<u>Shale</u> -	dark grey to black, sub-fissile, slightly carbonaceous, trace to slightly calcareous, trace disseminated pyrite. Shale becomes non-calcareous @6810.
6820 - 6840	Shale -	as above, calcareous.
6840 - 6850	<u>Shale</u> -	dark grey to black, blocky, siliceous, in part calcareous, micro-micaceous, minor disseminated pyrite. Minor very fine grained, calcareous Quartzite.

6852 - 6874	DIAMOND CORE #2, Cut 22', Recovered 22'.
6870 – 6930	Shale - dark grey to black, sub-fissile, carbonaceous, minor disseminated pyrite, variably calcareous, medium hard. Minor white vein calcite
6930 - 69 <i>5</i> 0	Shale - dark grey, blocky, very calcareous.
6950 - 6970	Shale - as above, very calcareous and limestone (10%) light - dark grey, very fine crystalline, sandy, tight, trace crinoid fragments, trace gilsonite?
6970 - 6990	Shale - as above and limestone - medium to dark grey, very fine crystalline to aphanitic, argillaceous, grading to very calcareous Shale. Trace light grey, crinoidal Limestone.
6990 - 7000	POOR SAMPLE. Shale and Limestone - as above.
7000 - 7010	<pre>Limestone - light to medium grey, mottled, fine crystalline, in part slightly argillaceous, trace crinoid fragments, sandy, tight. Shale - as above (30 - 40%).</pre>
7010 - 7020	<u>Limestone</u> - as above with interbedded Shale - dark grey to black, sub-fissile, non-calcareous, trace disseminated pyrite.
7020 - 7030	<u>Limestone</u> - light to medium grey, mottled, medium to fine crystalline, in part crinoidsl, in part slightly argillaceous and sandy, tight. Minor Shale as above.
7029 - 70 <i>5</i> 3	DIAMOND CORE #3, Cut 24', Recovered 20.5'
7050 - 7060	Shale - black, sub-fissile, non-calcareous to slightly calcareous, pyritic, carbonaceous. Limestone (10 - 20%) as above.
7060 - 7070	Shale - as above with Quartzite (10%) - medium grey, very fine grained, calcareous, hard, grading to sandy Limestone.
7070 - 7110	Shale - dark grey to black, sub-fissile to fissile, non-calcareous, pyritic, interbeds. Limestone (40%) light to medium grey, mottled, very fine crystalline, sandy, tight.
7110 - 7120	<u>limestone</u> - as above with Shale (40%) (as above)interbeds.

7120 - 7140	imestone - light to medium grey, mottled, very fine crystalline, trace floating sand grains. Minor (30%) Shale interbeds, dark grey to black, blocky, calcareous. Minor calcareous Quartzite.
7140 - 7150	dmestone - light to medium grey, mottled, very fine crystalline, sandy, black chert, in part siliceous. Minor Shale (20%) as above. Abundant calcareous Quartzite.
7150 - 7160	imestone - as above, very sandy, cherty, grading to Sandstone - light grey, very fine grained, hard, calcareous. Shale - as above.
7160 - 7170	<u>Chale</u> - dark grey to black, sub-fissile to blocky, slightly calcareous, trace disseminated pyrite, carbonaceous medium hard. Abundant dark grey chert. Minor Limestone and Quartzite as above.
7170 - 7230	Shale - as above, slightly silty and calcareous.
7230 - 7290	Shale - as above with minor Sandstone - light grey, very fine grained, very calcareous, tight, grading to very sandy limestone.
7290 - 7310	<u>Shale</u> - dark grey, blocky, calcareous. Minor Sandstone as above.
7310 - 7320	Shale - dark grey, blocky, calcareous, grading to Shale medium grey, very calcareous, silty. Minor Sandstone as above, very calcareous grading to very sandy limestone.
7320 - 7340	Shale - as above, very calcareous with a very fine granular texture.
7340 - 7350	Shale - as above, with minor Sandstone - light grey, very calcareous, very fine grained, tight. Shale slightly less calcareous.
7350 - 7390	Shale - as above.
7390 - 7440	Shale - dark grey, blocky, calcareous, minor interbedded Sandstone and sandy Limestone as above. Abundant white vein calcite - fractured.
7440 - 7470	NO SAMPLE - LOST CIRCULATION.

7470 - 7480	Shale - (40%) dark grey, blocky, slightly calcareous, hard, siliceous, silty, cherty. Sandstone - medium-dark grey, very fine grained, hard, grading to Siltstone - calcareous, in part siliceous, silty.
7480 - 7500	Sandstone - medium grey, very fine grained, very calcareous, hard, silty, grading to very calcareous Siltstone. Shale - dark grey to black, blocky siliceous to fissile, minor disseminated pyrite, cherty (dark grey). Traces very sandy, silty Limestone.
7500 - 7510	Siltstone - grading to very fine grained Sandstone - light to medium grey, very calcareous. Shale - as above. Minor very silty, sandy Limestone.
7510 - 7530	Limestone - light-medium grey, very fine crystalline, very silty grading to very calcareous Siltstone. Minor Shale as above. Traces fracturing.
7530 - 7550	<u>limestone</u> - light-medium grey, fine crystalline, silty, in part grading to very calcareous Siltstone, tight. Minor calcareous Shale.
7550 - 7560	Shale - dark grey, blocky, calcareous, trace disseminated pyrite, Minor Limestone and Siltstone as above. POOR SAMPLE.
7560 - 7580	Shale - dark grey to black, sub-fissile to blocky, carbonaceous, slightly calcareous, in part slightly siliceous, trace disseminated pyrite. Minor Siltstone and Limestone as above.
7 <i>5</i> 80 - 7 <i>5</i> 90	Shale - as above with Sandstone - medium grey, very fine grained to silt, grading to very silty Limestone.
7590 - 7640	Shale - as above, non-calcareous, Sandstone (40%) as above. Abundant sandy, very calcareous Limestone.
7640 - 7670	Shale - as above with Limestone (20 - 30%) - medium grey, aphanitic, tight, slightly argillaceous. Lost Circulation - fractured. Abundant medium grey Chert.
7670 - 7720	Shale - as above, very cherty. Minor calcareous Siltstone interbeds. Abundant white calcite @7710.
7720 - 7730	Shale - dark grey, blocky to sub-fissile. Chert - dark grey. Minor calcareous Sandstone and silty sandy Limestone. Minor black, fissile Shale.

7730 - 7750	Siltstone - light to medium grey, very calcareous grading to very silty Limestone. Shale - dark grey-black, fissile, carbonaceous, non-calcareous, pyritic. Chert - medium grey.
7750 - 7760	Shale - dark grey to black, fissile to blocky, in part siliceous and slightly calcareous, trace disseminated pyrite. Minor calcareous Siltstone as above. Trace Chert.
7760 - 7790	Shale - as above with very abundant dark grey Chert.
7790 - 7800	Shale and Chert - as above. Sandstone - light-medium grey, very calcareous, very fine grained, grading to Siltstone and very silty Limestone.
7800 - 7810	Shale and Chert - as above, minor Siltstone.
7810 - 7860	Shale - dark grey to black, sub-fissile to blocky, hard, siliceous, Minor black, fissile, pyritic Shale and Siltstone. Minor Chert - dark grey. Trace dark grey Quartzite.
7860 - 7880	Shale - as above. Chert - as above. Sandstone (30%) light grey, very fine grained, very calcareous, grading to sandy Limestone, tight, dark-medium grey, fine crystalline, slightly argillaceous.
7880 - 7910	<u>Shale</u> - as above. Chert - as above. Minor Limestone and Siltstone as above.
7910 - 7920	Shale - dark grey, blocky, calcareous to non-calcareous, trace disseminated pyrite. Minor Chert - dark grey and Limestone as above.
7920 - 7930	Shale - medium-dark grey, blocky, slightly calcareous, hard, siliceous. Chert - medium grey. Siltstone medium grey, calcareous, hard. Trace light grey, silty Limestone.
7930 - 7950	Shale - Chert and calcareous Siltstone as above. POOR SAMPLES.
7950 - 7960	Shale - dark grey-black, blocky, hard, siliceous, sub- fissile, carbonaceous, pyritic. Chert - as above. Limestone - light grey, very fine crystalline, slightly silty and argillaceous. Abundant white vein calcite.

7960 - 7980	Shale - dark grey, blocky, calcareous, hard. Minor dark grey quartzite. Minor silty Limestone and calcareous Siltstone.
7980 - 7990	Shale - as above. Siltstone - medium grey, blocky, hard, very calcareous, in part grading to silty Limestone Minor Chert as above.
7990 - 8010	<u>Limestone</u> - light to medium grey, very fine crystalline, slightly dolomitic, sucrosic, slightly argillaceous silty grading to very calcareous Siltstone. Tight
8010 - 8020	<u>limestone</u> - as above, becoming very argillaceous grading to Shale - medium grey, blocky, very calcareous.
8020 - 80 <i>5</i> 0	Shale - medium grey, blocky, calcareous, minor black, fissile, pyritic Shale. Chert - medium grey. Siltstone - medium grey, very calcareous. Minor Limestone - as above.
8050 - 8060	Shale - medium-dark grey, blocky, calcareous. Trace calcareous Siltstone and silty Limestone. Trace white vein calcite.
8060 - 8070	Shale - dark grey-black, sub-fissile to blocky, trace disseminated pyrite, slightly carbonaceous. Shale - as above, calcareous. Trace white vein calcite.
8070 - 8080	Shale - as above, calcareous, blocky, in part siliceous.
8080 - 8130	Shale - black, sub-fissile, carbonaceous, pyritic, in part siliceous. Trace calcareous Siltstone and white vein calcite.
8140 - 8600	Shale - black, fissile to sub-fissile, carbonaceous, pyritic, non-calcareous, slightly siliceous. Trace chalcopyrite @ 8370 - 8380.
8600 - 8690	Shale - dark grey-black, fissile to blocky, carbonaceous, pyritic, in part siliceous, non-calcareous.
8690 - 8740	Shale - dark grey to black, blocky, hard, siliceous, pyritic, slightly carbonaceous, non-calcareous.
8740 - 8750	Shale - as above. POOR SAMPLE.

8750 - 8800	Shale - dark grey to black, sub-fissile, hard, in part slightly siliceous, slightly carbonaceous, minor disseminated pyrite, non-calcareous.
8800 - 9000	Shale - grey-black, blocky, minor disseminated pyrite, slightly carbonaceous, variably siliceous, non-calcareous.
9000 - 9020	Shale - dark grey-black, blocky, slightly carbonaceous, pyritic, variably siliceous, non-calcareous. POOR SAMPLES.
9020 - 9030	NO SAMPLE.
9030 - 9060	POOR SAMPLES as above.
9060 - 9080	Shale - dark grey to black, blocky, inpart sub-fissile, slightly carbonaceous, disseminated pyrite, variably siliceous, non-calcareous.
9080 - 9310	<u>Shale</u> - dark grey, blocky, very siliceous, disseminated pyrite throughout, non-calcareous, hard, slightly carbonaceous. Minor traces white vein calcite. Occassional trace slickensides. Concoidal fracture.
9310 - 9490	Shale - as above with Shale - dark grey-black, sub-fissile, carbonaceous, pyritic, slickensides. Traces white vein calcite.
9490 - 9500	Shale - as above. POOR SAMPLE.
9500 - 9 <i>5</i> 40	<u>Shale</u> - dark grey to black, fissile to sub-fissile, in part siliceous, hard to medium hard, in part carbonaceous, non-calcareous, minor disseminated pyrite. Trace quartz filled fractures.
9540 - 9630	Shale - dark grey, sub-fissile, in part blocky, siliceous, slightly carbonaceous, minor disseminated pyrite.
9630 - 9790	Shale - dark grey, sub-fissile to blocky, slightly carbonaceous hard, siliceous, non-calcareous, minor disseminated pyrite, micro-micaceous.
9790 - 9800	Shale - as above, abundant white vein quartz - fracturing, increasingly carbonaceous in part.
9800 - 9810	Shale - dark grey, fissile to blocky, in part carbonaceous, silty texture, fractured, minor disseminated pyrite.

9810 - 9820	<u>Shale</u> -	dark grey, blocky, siliceous, hard, minor disseminated pyrite, trace fracturing.
9820 - 9860	<u>Shale</u> -	dark grey to black, predominantly blocky to sub-fissile, siliceous, with minor fissile Shale, pyritic, minor fracturing with quartz infilling fractures, in part slightly carbonaceous.
9860 - 10060	Shale -	dark grey-black, blocky, very siliceous, concoidal fracture, slightly carbonaceous, pyritic, non-calcareous, trace quartz filled fractures. Very minor interbedded (1' beds) black, fissile Shale.
10060 - 10080	Shale -	as above, in part becoming less siliceous.
10080 - 10190	Shale -	dark grey-black, blocky, very siliceous, in part concoidal fracture, slightly carbonaceous, pyritic, micro-micaceous, non-calcareous. Trace white vein quartz. Minor black, sub-fissile Shale. Shale becoming slightly more carbonaceous.
10190 - 10250	Shale -	as above, abundant quartz and calcite infilling fractures.
10250 - 10260	Shale -	as above with increasing sub-fissile to fissile, carbonaceous Shale, less siliceous.
10260 - 10310	Shale -	dark grey-black, sub-fissile, slightly siliceous, carbonaceous, non-calcareous, trace pyrite, micro-micaceous, Minor blocky, siliceous Shale.
10310 - 10330	<u>Shale</u> -	dark grey-black, sub-fissile carbonaceous to blocky siliceous, pyritic. Becoming increasingly blocky and siliceous, non-calcareous.
10330 - 10360	Shale -	dark grey-black, sub-fissile to blocky, siliceous, pyritic, slightly carbonaceous, micro-micaceous, non-calcareous. Abundant white vein quartz and calcite.
10360 - 10460	Shale -	as above, blocky, siliceous.

SECTION III

ENGINEERING SUMMARY

INEXCO et al MALLARD YT 0-18

(a) REPORT OF DRILL STEM TESTS

There were no drill stem tests run during the drilling of Inexco et al Mallard YT 0-18.

(b) CASING RECORD

Surface casing:

Ran 32 jts. (959.821) 13 3/81, 54.5#, K-55,

Smis 8 rd casing. Landed at 957 K.B.

Cemented with 240 sx fondu cement and 760 sx

oilwell cement. Plug down @ 1:53 A.M., May 10/72.

Intermediate casing:

Ran 83 jts. (3180') 9 5/8", 36# & 40#, K-55,

Smls 8 rd casing. Landed @ 3178 K.B. Cemented with 650 sx oilwell cement. Plug

down @ 8:00 A.M., July 21/72.

(c) BIT RECORD

See page 36 & 37.

(d) MUD REPORT

ADDITIVES	AMOUNT	
Gel Caustic Lime CMC Bicarb. X-Pel G Benex Peltex Cane Fibre Kwik seal Poly seal Sawdust Cement Soap	156,000 1,150 150 1,900 1,500 6,825 316 150 1,240 2,120 1,900 121 400	lbs. lbs. lbs. lbs. lbs. lbs. lbs. lbs.
Calgon Hagatreat	300	lbs.

BIT RECORD

INEXCO et al. MALLARD YT 0-18

					•				
Bit No.	Type	<u>Jets</u>	<u>Size</u>	From	<u>To</u>	Footage	Hours	Cond.	
1A	MAAN	open	121	0	356	3 <i>5</i> 6	41=	54I	
2 <u>A</u>	DSJ	open	12	3 <i>5</i> 6	645	289	$28\frac{1}{2}$	56I	
3A	DSJ	open	12=	645	755	110	17 ² /2	76I	
4A	DMNJ	open	124	755	840	85	13	651	
5A	MYY	3/28	12	840	88 <i>5</i>	45	13	62I	
6A	Н76Ј	3/28	124	885	955	70	10=	53I	
7A	Hole opener	5/20	174	ő	918	918	18=	86I	
8A	Hole opener		17	918	961	43	104 184 44	44I	
	,		~12		1	-,,	'4	1 1040	
1	RX55R	o pen	124	961	1124	157	134	44I	
	SCM 5G	open	$12\frac{1}{1}$	1124	1857	733	51 1		cones locked
2 3 4	M88	3/28	$12\frac{7}{1}$	1857	2360	503	35	33I	
4	DMNJ	3/22	$12\frac{1}{4}$	2360	2442	82	10½	42I	
5	SC <i>5</i> G	3/22	$12\frac{1}{4}$	2442	3105	663	48~	78I-1	cone locked
6	M88	2/22;1/18	$12\frac{1}{4}$	3105	3465	360	33 ‡	44I	
7	SCH	2/18:1/20	12	3465	3604	139	11	22I	
? 8 9	DMNJ	2/18;1/20	12 1	3604	3750	146	19	451	
9	SCH(RR#7)	2/22;1/18	124	3750	4292	542	67% 234 134 562	22I	
10	SC4G	2/18;1/20	12 1	4292	4426	134	23#	11I	*
11	M44N	2/20;1/18	12‡	4426	4511	8 <u>5</u>	$13\frac{1}{2}$	46I	.,.
12	SC4G(RR#10)	2/18:1/20	12 ‡	4511	4890	379	56 _출	65I	
13	M88RR		12+	4890	4890	STUCK	IN HOL	E	
14	M441N	3/open	124	1.00.			-4		
15 16	M88RR	-1 1-0	12計	4890	4975	85	18를 49돢	48I	
16	SCM5J	2/22;1/18	12分	4975	5274	299		63I	
17	SCM5J	2/22;1/open	12章	5274	5340	66	17	11I	
18	DMNJ	2/22;1/28	127	5340	5443	103	2234	44I	
19	M44J	2/22;1/28	12444444444444444444444444444444444444	5443	5497	54	17를 19쿡	62I	
20	DMNJ	2/22;1/28	14	5497	5563 5608	66 67		42I	
21	SHG J S88	3/open	8¾ 8¾	5563 5638	5628 5605	65 67	17	43I	
22	♦ Chris	3/open	623/32	5628 5695	569 <i>5</i>	67	$24\frac{1}{2}$	22I	
1B	S88RR	open	8%	5695	5715 5715	20 20	2¾ 2¾	Good 22I	
23 24	M4LC	open 18/16/15	8¾	5715	5807	20 92	15章	44I	
	144 144	3/15	8%	5807	6020	213	41 1	12I	
25 26	DMJ	ン/ エン 2-15/1:-1/L	8¾	6020	6134	114	16	671	
27 27	DMJ	2-15/1-14 2-15/1-14 3/15 3/15	8³⁄4	6134	6225	91	13 ‡	76I	
28 28	J44RR	グーエンリエニアム	8³⁄4	6225	6525	300	46	Good	
28 29	M4LG	3/15	8%	6525	6548	23	9	64I	
30	DMJ	1/14:2/15	8%	6 <i>5</i> 48	6611	63	15%	651	
31	DMJ	3/15	81/4	6611	6706	95	18%	641	
71	TATE	71 17	U/T	COTT	0700	10	10/4	O-12L	

33 2B 34	◇ Chris M4IGJ	open 2/15;1/14	623/2 83/4	68 <i>5</i> 2 68 <i>5</i> 2	6874 6900	22 48	17 ¹ / ₂ 12 ¹ / ₂ 9 ¹ / ₄ 6 ¹ / ₂	Good 44I	
						(221	Ream: 2	6' Dril	l) .
35	DMJ	2/15:1/14	8¾	6900	6943	43	11 ‡ 13½	76I	•
36	DMJ	2/15;1/14	8¾	6943	6992	49	$13\frac{1}{2}$	76I	
37	DMJ	2/15:1/14	8¾	6992	7029	37	11 1	76I	
3B	♦ Chris	open	62/2	7029	7053	24	11 ¹ / ₄ 8 ¹ / ₂ 12 ¹ / ₄	Good	
38	SWCH	2/16;1/13	8¾	702 9	7076	47	123/4	52I	
			- 1.			(241	Ream- $6\frac{1}{4}$	hr: 23'	Drill- $6\frac{1}{2}$ hr)
39	X55R	2/15;1/14 2/15;1/14	8¾	7076	7409	333	40	84I	
40	M88	2/15;1/14	8%	7409	7562	153	18 1	$86\frac{1}{2}$	
41	SWCH	2/15;1/14	8¾	7562	7568	6	1	11I	
42	RG7XJ	2/15;1/14	8¾	7 <i>5</i> 68	7685	117	15= 10=	12T	
43	W4HJ	open	8¾	7685	7723	38	10年	66I	
44	FCH4J	3/18	8¾	7723	8013	290	56	24I	
45	J44RR	3/14	8%	8013	8405	392	40#	144I	
46	FCM5J	3/14	8¾ 8¾	8405	8749	344	56 46 46 38 30 4	72I	
47 48	X55R M4LG	3/14 3/16	011 8 ∄ 4	8749	9002 out Cer	2 <i>5</i> 3	3074	a a T	
49		2/10 2/4/104/45	8¾	9002	9002			11I New	
	RRX55R M4LG	2/14;1/15 2/14;1/15	8%	9002	9037	- 35	 53/	MAM	
50 E1	X55R	2/17:1/17	8%	9037	9462	425	<i>5</i> ¾ 32	68I	
JL 52	7JS	3/16	8 ¾	9462	9490	28	7 <u>1</u>	22I	
51 52 53 54 55 56 57 58	X55R	2/14;1/15 3/16 3/16	83/4	9490	9611	121	7章 26章 46章 18秒 23章 16秒 36章	22I	
54	FCM5	3/16	8¾	9611	9727	116	46	22I	
55 55	SS1G	3/16;1/18	83/4	9727	9802	75	18%	86I	
56	\$88	3/16;1/18	81/4	9802	9936	134	23=	87年	
57	7JS RR	2/16;1/20	8¾	9936	10043	107	16%	78Ï	
58	X55R	3/18	8¾	10043	10307	264	36 1	68 1	;
59	X55R	3/18	81	10307	10475	168	19¾	32Ĭ	
4B	♦ Chris	open	81/32	10475	10492	17	9 1	Good	
60	7JS RR	3/18	8 ³ //	10492	10499	7	9½ 1½ 5%	44#	
			ned -	10307	10492	185	5¾	•	

(e) DEVIATION RECORD

See page 39 & 40.

(f) SUSPENSION PLUGS

Plug #1 - 10499' - 10399' with 100 sx neat oilwell cement. Plug down @ 7:25 P.M., Aug 16, 1972.

Plug #2 - 2000' - 1900' with 100 sx neat oilwell cement. Plug down @ 11:05 P.M., Aug 16, 1972. Felt plug #2 @ 1860'.

(g) LOST CIRCULATION ZONES

The Mallard well was drilled from surface to 7685 with no apparent lost circulation zone other than minor additions of LCM on the surface hole. At 7685 drilling operations were stopped for 3 1/4 hrs. to mix LCM. It is suspected that circulation was lost to a highly fractured zone. Circulation was regained following the addition of 700 lbs. of polyseal. From 7685 to TD it was apparent that portions of the hole were taking minor amounts fo fluid. Circulation was maintained by the addition of gel and water to make up the required volume plus the addition of small amounts of LCM to plug fractured intervals.

(h) REPORT OF BLOWOUTS

None

DEVIATION RECORD

INEXCO et al. MALLARD YT 0-18

Dopth	Deviation (Degrees)	<u>Depth</u>	Deviatio	n (Degrees)
67	} v	2065	3%	
103	<u>1</u>	2125	37	
700	74 121 121 121	2127	14	
132		2188	4章	
160	1	2245	사슬	
200	1	2310	43/4	
234	3 4	2377	5	
293	ĺ	2409	111	
321	1/8	2440	3344454434	
350	2	2493	21	
	1%		72	
380	178	2555	4	
410	234	2617	4	
4444	23/8	27 <i>5</i> 3	- 3	
473	23/8	3001	23/4	
505	2为	3283	4	·
536	2	3407	33/4	
536 566	2=	3 <i>5</i> 96	3 % 82-12-14-14 84-18-14-14 8	Misrun (8° chart)
596	21.	3 <i>5</i> 96	01	(16° chart)
596 620	22		0 2	(16° chart)
620	2	3655	O#	·
661	Z i	3687	₩	
692	$\frac{2^{2}}{2}$	3718	8	
720	21/4	3750	7¾ 9½	
755	2*4	3790	9 <u>1</u>	
787	23/4	3822	10	•
819	21	3853	974	,
850	21	3882	10	
8 <u>5</u> 0 880	2	2002 204 m	94	
000) 53v	3915		
914	24	3946	91/2	
946	274	3972	10	
1012	2¾	4000	9	
1105	$2\frac{1}{2}$	4030	10	
1 165	$2\frac{1}{2}$	4072	9블	
1272	$2^{\frac{7}{4}}$	4102	9 ½ 9*4	
1390	2	4133	93/4	
	2 <u>1</u>	4163	10	
1523		410)	934	
1646	4 2	4193	7/1 03/	
1879	72	4259	9%	
1939	21/2 21/2 31/2 4 31/8	4319	9%	
2034	3/8	4384	9	
		•		

DEVIATION RECORD (continued)

Depth	Deviation (Degrees)		Depth	Deviation ((Degrees)	
4440	9		6485	20	DOLL GOD	
4510	8 <u>1</u>		6515	21		
4604	8 <u>1.</u> 8 <u>1.</u>		6548	22		
4739	9		6570	21		
4860	~ 73/4		6605	22		
4970	94		6630	22		
5019	7% 9 <u>1</u> 9 <u>1</u> 9 <u>1</u>		6695	20		
5050	10		6760	19 월		
5084	10½ 11½		6780	21		
5116	11 1		6842	22		
5146	12		6895	21		
5170	12 ‡		6940	21		
5209	12 1 12 1		6992	Mi.srun		
5241	12	×	7000	20		
5273	12½		7076	20	•	
5290	12¾		7106	20		,
5332	13		7137	19 1 19 1		
5360	12章		7231	1分章		
5426	11章		7324	19		
5489	12½ 11½ 11½ 10¼ 10¼		7409	19		
5563	10=		7482 7 <i>5</i> 42	18		
5616 5605			7792	19 6 (?)	364	
5695 5790	12 131	•	7723		Misrun (Off 16°	-71-1
5820	13½ 14¼		7700	10 (2)	Misrun	clock)
5857	15		7734	19	misimi	
5888	15		7796	20		
5920	1574		7860	19		
5950	16		7990	18		
5982	$16\frac{1}{2}$		8045	16½		
6013			8135	17		
6040	<u>1</u> 8		8226	17章		
6070	18		8400	17		
6106	17		8 <i>5</i> 80	17		
6130	$16\frac{1}{2}$		8740	1 8		
6160	1434		9002	Misrun		•
6225	15 15		9250	21		
6265	15		9462	18		
6330	16		9611	17		
6360	17		9802	21		
6394	18		9936	20		
6425	19½		10307	$19\frac{1}{2}$		
6455	20		10462	21		

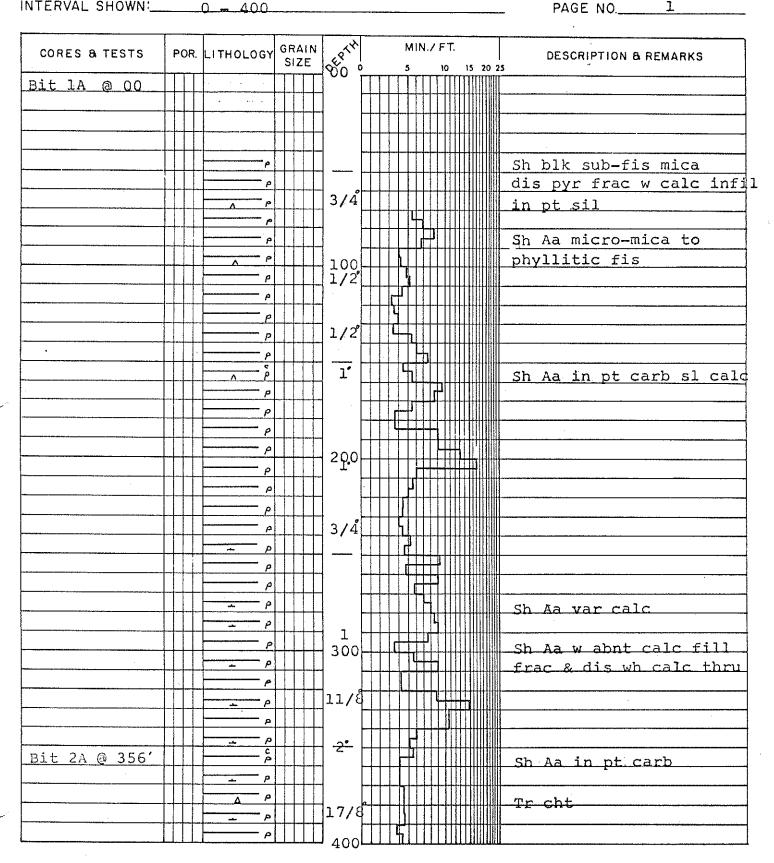
SECTION IV - LOGS

INEXCO et al. MALLARD YT 0-18

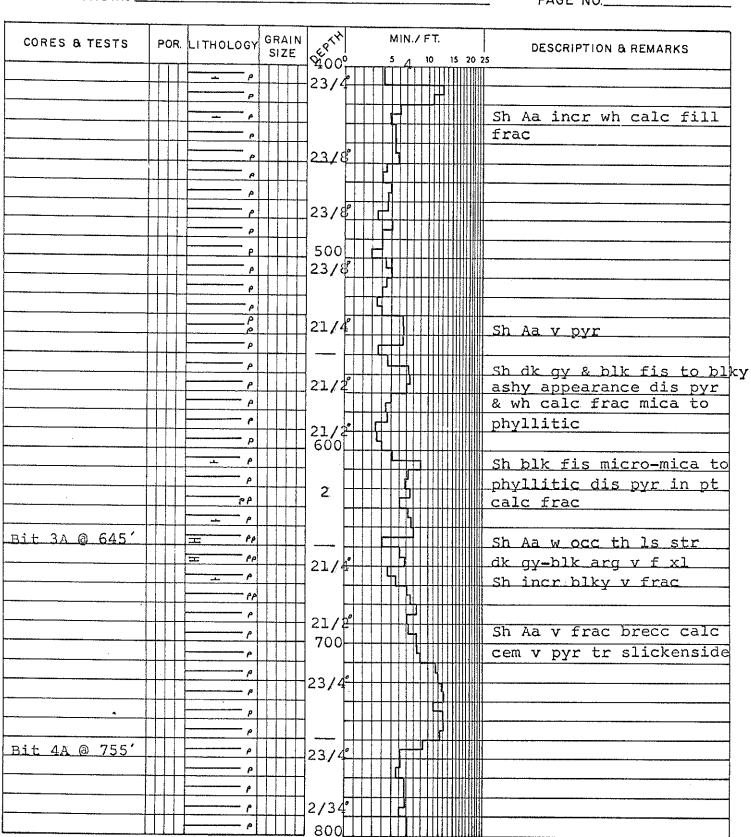
<u>Type</u>	<u>Date</u>	Interval	Scale
Dual Induction Laterolog	June 18/72 August 12/72	2" & 5" 2" & 5"	
BHC Sonic-Gamma Ray-Caliper	June 18/72 August 12/72	952 - 5713 5500 - 10488	211 & 511 211 & 511
Formation Density Compensated	August 12/72	3030 - 10492	2" & 5"
Dipmeter	June 18/72 August 12/72	9 <i>5</i> 4 - 5707 5707 - 10492	

Well Name: INEXCO et al. MALLARD YT 0-1	8
Location: 65 47 58 N 140 17 41 W	—LEGEND—
Operator: INEXCO OIL COMPANY	Dolomite, streak
Elevation: Ground: 3650 (est.)X.B.3665 (est.)	Φ Φ Φ Conglomerate Sandy
Spud Date: 11:30AM May 2, 1972	Granite Wash " " Silty
Finished Drilling: 7:20 P.M. August 12, 1972	Sandstone
Status: Suspended	Siltstone Dolomitic
Total Depth: 10,499 (Driller)	Shale, light color Anhydritic
	Shale, med.color Gypsiferous Shale dark color Chert light B dark
20170111 01111011.	Shale, dark color Chert, light & dark Shale, black Argillaceous
Geologist: <u>Harold H. Williams</u>	TT 77 Maristone Glauconitic
SURFACE CASING: Ran 32 Jts. 959.82'	Limestone 🖽 Salt Cast
13 3/8" K-55 54.5# CSG. Landed @ 956.82' K.B. with 240 sacs Fondue &	Dolomite Nodules
760 sacs Oilwell Cement. Plug down @ 1:53 A.M. May 10, 1972.	Anhydrite Bioclastic or Frag.
INTERMEDIATE CASING: Ran 83 Jts. 3	Gypsum Q Oolites
3180' 95/8" K-55 36 & 40# CSG. Landed @ 3178' K.B. with 650 sacs	Solt Pellets
oilwell cenent. Plug đown @ 8:00 A	
M. July 21, 1972.	Glacial Till F Fossils
CORES: #1 5695-5715 #2 6852-6874	
#3 7029-7053 #4 10475-10492	V V Volcanic E Earthy Metamorphic C Chalky
LOGS: Dual Induction Laterolog	Mari, timy Lithographic
BHC Sonic Gamma Caliper Formation Density	Marl, dolomitic Cx Cryptocrystoline
Dipmeter	Limestone, streak No Samples
	G000 >20%
	FAIR 12-20% POOR 6-12% TRACE (6%
	S D VERY FINE FINE FINE MEDIUM COARSE VERY COURSE
	Oil, heavy stain D. Oil, dead or asphaltic
	Oil, med, poor or spotty stain Gas, (positive test)
•	O Oil, light, questionable stain W Water, (positive test)

WELL	NAME:_	INEXCO	et	al.	MALLARD	YT	0-18	DATE: May	8/72
,							-		
INCT CON	241 0110		_		_				-



WELL	NAME:	INEXCO	et	al.	MALLARD	ΥT	0-18	 DATE: May	8/72	
INTER	VAL SHO	WN: 400	- 8	300				PAGE NO.	2	· · · · · ·



WELL NAME: INEXCO et al. MALLARD YT 0-18	DATE: May 8/72
NTERVAL SHOWN: 800 - 1200	PAGE NO. 3

CORES & TESTS	POR	₹.	LITHOLOGY	GRAIN SIZE	8000 644)		 ۱۹ ۵	MIN	./1	F T.	1	5 2	20 :	25	DESCRIPTION & REMARKS
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		-	*			H	۲,	$^{+}$			+	\parallel	₩		╫╴	
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~		H	*** A * **	4	1	H	╁		H	+	111	\parallel				Ss md-dk gy p srt hd sil to calc grdg to sltst tt
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		-	<u> </u>			H	╫	-	\vdash	+	+	╫				Mnr intbd Sh Aa
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		-		╼┼┼┼┼┼	1	H	+	-		$\dashv \dashv$	-	$\parallel \parallel$	₩	$\parallel \parallel$		mica sil slty grdg to calc sltst. Mnr Ss intbds
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ERVAL SHOWN:_	1200 - 1600		PAGE NO. 4
CORES & TESTS	POR LITHOLOGY GRAIN SIZE	MIN./FT. 5 10 15 20 1200	DESCRIPTION & REMARKS
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		21/4	Ss Aa carb v calc in p sil slty tr gilsonite Abnt wh calc - frac fi
		1300	Ss - Sh Aa
	- 10		Ls It gy-wh mott cse x crin sl arg tt wi mnr intbd Sh blk sub-fis
			carb micro-mica
	^ c		Sh blk blky to sub-fis
	^ c	21/2 1400	slty diss pyr occ tr f
	, c		
	Λ · · · · · · · · · · · · · · · · · · ·		
**************************************	, c		Sh Aa Tr calc intbds
	c	1500	
	- c	21/2	Sh Aa in pt fis.diss p & occ pyr in frac
	Λ		Abnt wh calc veinlets frac
	A		Sh Aa frac

WELL NAME: INEXCO et al. MALLARD YT 0-18	DATE: May 15-16/72
INTERVAL SHOWN: 1600 - 2000	PAGE NO. 5

Sh blk fis micro-mica carb v pyr abnt wh calce blebs & veinlets sh has a bronze phyllit sheen 1700	CORES & TESTS	POR LITHOLOGY GRAIN				1600 684,49		MIN., 5	/ F	Т.	15	20	DESCRIPTION & REMARKS
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Sh blk fis micro-mica carb v pyr abnt wh calc blebs & veinlets 1700 17		П	П	ρς			\vdash	<u> </u>	$\dagger \dagger$	+			
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Sh has a bronze phyllit sheen		 	╁			-			+	\parallel			carb v pyr abnt wh calc
Sh dk gy to blk fis micro-mica carb diss pyr sl calc hd sil calc intbds		\vdash	+		-	<u> 21/</u> 2		7	44	Ш		Щ.	
1700		\dashv		<u> </u>		_	\sqcup	<u> </u>	\perp				Sh has a bronze phylliti
1700		_ _	44.	/ c		_	Щ			Щ	Ш	Щ	sheen
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diss pyr sl calc hd sil calc inthds 1800		\prod	П			1	十	╅	\dagger	$\parallel \parallel$			micro-mics ah
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Isoo Sh dk gy to blk fis to blky micro-mica in pt c diss pyr sl calc hd sil calc intbds Iso Sh Aa heavy frac Iso Water @1850 Iso Sh Aa wi th slty calc s intbds & occ sil intbd Iso Water @1850 Iso Sh Aa wi th slty calc s intbds & occ sil intbd wh calc & gtz fill frac Sh Aa Iso Sh Aa wi th slty calc s intbds & occ sil intbd wh calc & gtz fill frac Sh Aa Iso Sh Aa wi th slty calc s intbds & occ sil intbd wh calc & gtz fill frac Sh Aa			$\dagger \dagger$			1	+	.	+	╫		11111	
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diss pyr sl calc hd sil a		-	╀	- P C		1800	4	▕ ▗╏ [┖] ╅═╽ <mark>┥</mark> ╻	$\perp \mid$	Щ	Ш	Щ	blky micro-mica in pt ca
## / c			$\bot \bot$	- PC						Ш	Щ	Ш	diss pyr sl calc, hd sil
## 1857 File		Ш	$\bot \bot$	P 6									calc intbds
Bit #3 @ 1857				- PC				_ <u>h</u>					
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Sh Aa wi th slty calc s intbds & occ sil intbd he calc & qtz fill frac sh Aa	Tuid from foa		$\dagger \dagger$	<u>-</u>		1	\vdash		+	₩		₩	Sh Ad heavy frac
Intbds & occ sil intbd Political Poli			╁╁	<u> </u>		31/2	-	- - - - - -	+	+ + +			Ch to with older only of
## Pc 1900 Wh calc & gtz fill frac	O MUCET @TOOO	-	+	10000000	┠╌╂╌╢╌╂	-	-		+	₩	Ш		
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	XCO et al. MALI		DATE: <u>May 16-17/72</u>
TERVAL SHOWN:_	2000 - 2400		PAGE NO. 6
CORES & TESTS	POR LITHOLOGY GRA	MIN./FT. E 2000 5 10 15 20	DESCRIPTION & REMARKS
- MARIE LIVE	PC		Sh dk gy to blk blky to
7			sub-fis micro-mica carb
	- C		calc in pt, Occ th calc
AND THE PARTY OF T	= A 5P	31/8	slty intbd.
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	^ ^ ^ C	31/8 1	Sh Aa sub-fis calc to v
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			Sh Aa var calc to non-c
	Δ - P c		intbds.
	^ - a		Sh đk gy blky
	c	31/4°	Sh Aa v calc
	c		DII Na V Caic
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	- A G		micro-mica sl calc to
	<u> </u>		non-calc
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	c		Sh Aa frac
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	- A P C		
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	^ P C	 	
		+43/4°++++++++	
	<u>+</u> ^ c		
	a		Sh dk gy to blk sub-fis
			micro-mica carb diss py
	- ^ c		v calc
it #4 @ 2360			
	† † † † † † † † † † † † † † † † † † †	5°	Sh Aa var calc & sil
	- ^ c		

WELL NAME: INEXCO et al. MALLARD YT 0-18 DATE: May 18-19/72 INTERVAL SHOWN: 2400 - 2800 PAGE NO. . . 7 2400° POR LITHOLOGY GRAIN MIN./FT. CORES & TESTS DESCRIPTION & REMARKS SIZE Sh dk gy sub-fis to blky micro-mica in pt carb v calc Mnr Ls intbds md gy mott vf-f xl arg slty tt Bit # 5 @ 2442' grdg to v calc Sh Tr crin Ls md gy mott vf-f xl mn md xl arg sl dol & sil tr 31/22 fltg qtz gr tt Mnr Sh 2500 Ls Aa in pt crin arg to v arg chty tt grdg to Sh dk gy v calc foss chty Sh dk gy blky calc to v calc Tr Ls intbds Tr frad Occ th sil intbds 2600 Ls md gy aph to v f xl 4 sl arg sil tt & Sh dk gy blk calc Abnt wh vein calc Sh dk gy to blk sub-fis micro-mica carb sl calc Occ th Ls & sil intbd 2700 Sh Aa & Ls md gy mott vf xl sil arg in pt sdy tt Mnr sil intbds 3 Sh Aa wi mnr Ls intbds

WELL NAME: INEX	<u>CO</u>	е	t al. MALL	ARD YT	C	<u>-18</u>					DATE: May 20/72
NTERVAL SHOWN:_		2	800 – 3200							···	PAGE NO. 8
CORES & TESTS	P	OR.	LITHOLOGY GR	AIN EXX	, ,	M 5	IN.Z		15 2	0 2	DESCRIPTION & REMARKS
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	╂╂	+			\coprod	╀		444		mm	Sh Aa & Ls lt-md gy mott
	+	\parallel	= 1 1 1 1 1 1	 2900	\dashv	\mathbb{H}		+			vf xl sl arg v sil tr cht
	+-	\vdash			\vdash			$+\!\!\!+\!\!\!\!+\!\!\!\!+$		*****	v sdy grdg to v calc Ss
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	+	\vdash		++-	\vdash	╅╃┼		₩			sil
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	$\dagger \dagger$	H	·	 	\vdash	$++$ t t_{x}		₩			Mnr Sh md gy blky sil sl
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	$\dagger \dagger$	T	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		$\mid \uparrow \mid$			1111			
		\sqcap	<u> </u>					+++			Ls lt-md gy aph wi mnr f x
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				3000 23/4	0	╁┼┼		1111			to calc sltst sl arg Mod
					П					шш	amts Sh md-dk gy blky calc
					П	1 4					
		Ш									
		Ц									
	<u> </u>	Ш			Ш						Sh md-dk gy-blk blky cald
		Ц						Ш			grdg to v arg ls Mod amts
	<u> </u>	\coprod			Ш		НЦ	Ш			Intbd 1s Aa
				 3100	┵	<u> </u>		Щ			
Bit # 6 @ 3105	8	-	_ ^ ^ C	 - 	\sqcup		h				Sh dk gy to blk blky micro
	#	\dashv		111	\sqcup			$\parallel \parallel$	+	****	mica sl calc to non-calc
0 00% 0	+	\vdash	Δ Λ ¢	 	\sqcup	┼┼┼┞					bcm v sil Abnt dk gy cht
0.08% Cl	\dashv	+	- c	++	\vdash	<u> </u>				Щ	Sh blk abnt wh vein calc
95/811 aca chas	+	\dashv	A - A^	 	H					****	Sh dk gy blky sil Cht dk
9 <u>5/8" csg</u> shoe @ 3178 ' KB	H	\vdash	# 4 A ^	 	-	1111			+		gy Occ th calc intbd
JETO KD	\vdash	H	- (" ^ ") "	1-1-1	H	+++	Щ				
0.04% C7	++-	-	C	++-	\dashv				1 6 1 1 1 1 1	111111	Ls lt-md gy slty v chty
Va U = 10 C]	++-	+			+	$++\Pi$	Ш			₩	Sh blk fis carb soft
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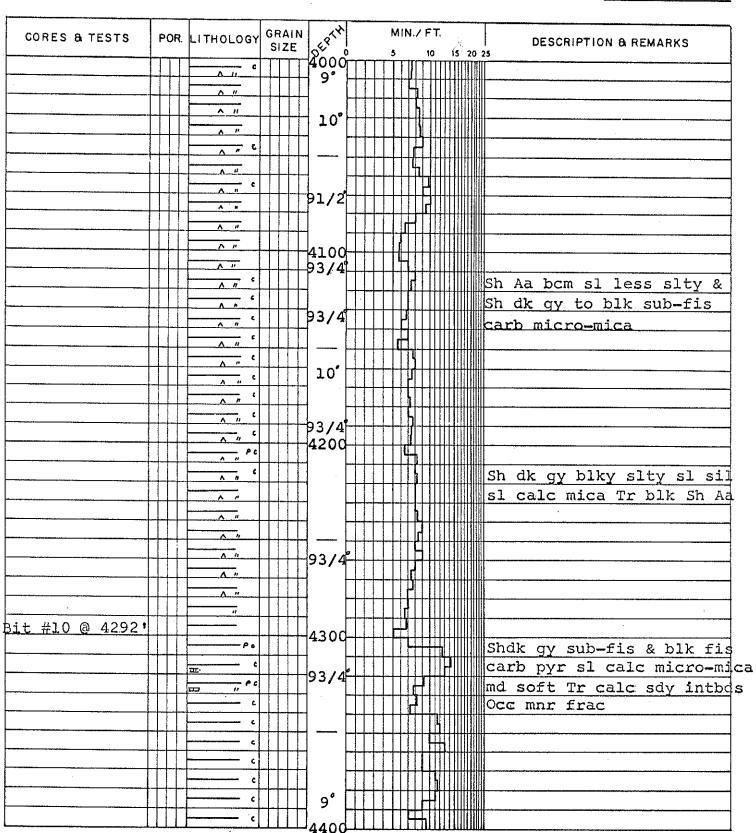
WELL NAME: INEXCO et	al. MALLARD	YT 0-18	DATE: May	22/72
INTERVAL SHOWN: 32	00 - 3600		PAGE NO	9

CORES & TESTS	POR.	LITHOLOGY GRAII SIZE	13500	MIN./FT. 5 10 15 20	DESCRIPTION & REMARKS
		. 4.4.4	T3200		Sh dk gy blky sil Cht dk
		F			gy Occ th calc intbd &
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		^^^			Sh Aa frac abnt wh calc
		^ c	П		
			П		
,		^ ^	П		Sh dk gy to blk sub-fis
		<u></u>	П		Qtzite lt gy-brn vf gr si
		^ ^ ^ A			Sh md gy blky plty calc
			П		to v calc Mnr ls intbds
		 ^	7,400		dk gy v arg Mnr sltst cal
		- ^ 6	3400 33/4		Sh blk fis carb sl to non-
0.15% C		с	33/4		calc mnr diss pyr
•		РС			
		Р с			
		P C			
Bit #7 @ 3465		PL PL			Sh blk to md bronze sheen
		۸۵			Fis carb non-calc mnr dis
		PC		4	pyr md soft
		ρε	3500		
		PC PC	3300	<u> </u>	
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		ρς	81/2 3600		

ITERVAL SHOWN:		3600 - 4	000		•	PAGE NO. 10
CORES & TESTS	POR.	LITHOLOGY	GRAIN SIZE	3600 T	MIN./FT. 5 10 15 20	DESCRIPTION & REMARKS
Bit # 8 @ 3604 Twisted collar				3600		
oox off @ 3604		- (P				
hrs fishing		^				Sh dk gy to blk fis to
		<u> </u>				sub-fis sl carb pyr non-
		c <i>p</i>		81/4		calc
		с Р				
	111	с р	·]_[
	111	^ c p		B1/4		
		Λ		3700		
		c #				
		- 100		8°		Sh dk gy to blk blky
		_ // c P		-		slty calc micro-mica py
	++	<u></u>		-		sl carb Tr th v calc in
3.4 40 @ 3750.		<u> </u>		73/4		
3it #9 @ 3750'	+++-	CP		/3/4		
	+++			 -	7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
	++-			┨		
	++			91/2		
		c		3800		Ch An Hana wi nhat whi at
		c				Sh Aa Frac wi abnt wh qt & calc
				10°		
	111			1		
		,, c				Sh dk gy to blk blky sli
		c		93/4	┤┤┌ ┩┤╎╎╢╢║	sl sil micro-mica in pt
		c				sl carb tr diss pyr Abnt
		c				wh calc & qtz fill frac
		Δ "		10°		,
		Λ "		3900		
		c		3900		
				93/4		
		¢				
] []		· · · · · · · · · · · · · · · · · · ·
		Λ "		91/2		

10°

WELL NAME	:_INEXCO	et al.	MALLARD	YT	0-18	DATE:_	May	27-28/72
INTERVAL S	HOWN:4	1000 -	4400			PAGE N	10	11

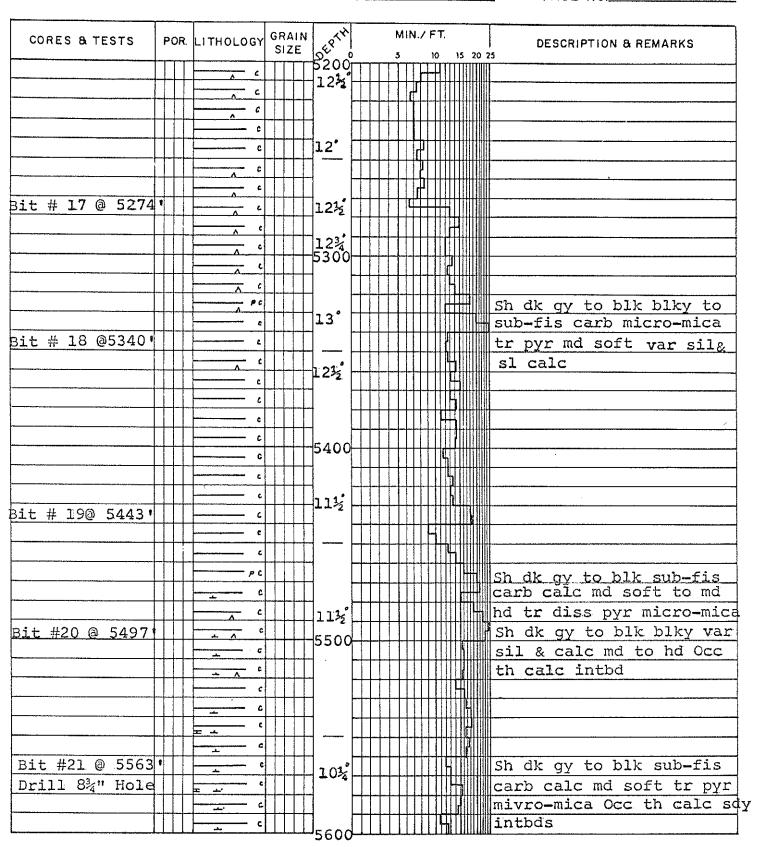


WELL NAME: INEX	CO e	et al. M	ALLAR	ry as	0-18	DATE: May 29-31/72
INTERVAL SHOWN:	4	1400 - 4	800			PAGE NO. 12
CORES & TESTS	POR.	LITHOLOGY	GRAIN SIZE	4400	MIN./FT.	
Bit #11 @ 4426		c				
		(9'		
Bit #12 @ 4511				4500 81/2	•	Sh dk gy to blk sub-fis
		C		D1/2		carb non-calc micro-mica or diss pyr md hd Tr qtz
						Sh Aa in pt slty
		, c		4600 81/4°		
		ρc ρc ρc		~ ~		
10 CORRECTION		т с		 		Sh blk fis to sub-fis carb pyr In pt slty
		# PC	- I depend on the contract of	4700		Sh Aa bcm sl sil
		#A P C		4700		
		c		9°		Sh blk sub-fis to blky i pt slty sl sil md hd car pyr in pt sl calc micro-
		P C				nica

WELL NAME: INEXCO	et al.	MALLARD YT 0-18	DATE: June 1-10/72
INTERVAL SHOWN:	4800 -	5200	PAGE NO. 13

CORES & TESTS	P	OR.	LITHOLOGY	GRAIN SIZE	1800	MIN./ FT. 5 10 15 20 2	DESCRIPTION & REMARKS
	П	П	PC		4800		
	\sqcap	11					Sh dk gy to blk blky to
, , , , , , , , , , , , , , , , , , , ,	T	$\top \!$					sub-fis sl slty & calc
· · · · · · · · · · · · · · · · · · ·	$\dagger \dagger$	$\dagger \dagger$	PC		1		
	\vdash	+			-		md hd in pt carb & pyr micro-mica Occ sl sil
, , , , , , , , , , , , , , , , , , , ,	+	++		++++			micro-mica occ si sii
	-	H	" PC		73/4	o	
- Control of the Cont	\vdash	+	P 6		-		
	H	+-	7.		-		
	H	₩.					
	-	++	^ / /	+++	4900		Sh Aa md hd to hd in pt
	igert	₩.					sil Occ th calc intbd
	-	$\bot\!\!\!\!\bot$	<u>" " " " " " " " " " " " " " " " " " " </u>				
	-	$\bot \bot$					
			, , ,				
]		·
			P C				
			,, PC		7.42		
tuck & Fishing			" с		91/2		
days Bits #			ρς				
.3,14 & 15@ 489	0	•	P c		1		
3it # 16 @ 4975		\sqcap			5000		
hange drilling							: .
luid from wate		\Box	c		91/2		
o mud @ 4980 •	-	$\dagger \dagger$			1		
	\vdash	++	^		10°		
	\vdash	╅╅			- 44		
	╁	++	^ ·		1		ch dle au hllere eil hd el
	-	++	·				Sh dk gy blky sil hd sl
	╁┼	╁┼			1012		calc micro-mica tr diss
0.15% C ₁	╁	┿┾			10/2	<u> </u>	pyr
Cl building up	-	++			5100		
in mud due to	\vdash	+		- - -	1112		
	-	-	c		112		
high vis	\sqcup	+	<u> </u>		4		
	\sqcup	\coprod	_ ^ c				
		\coprod			12"		
	Ш	Ш					
		\prod	c		124°		Sh. Aa bcm incr carb sub-
			A PC		164		fis md hd less sil
	П	П					
	П	\sqcap			1		

WELL NAME: INE	XCO et a	1. MALLARD	YT 0-18	DATE: June	11-15/72
INTERVAL SHOWN:_	5200 -	5600		PAGE NO.	



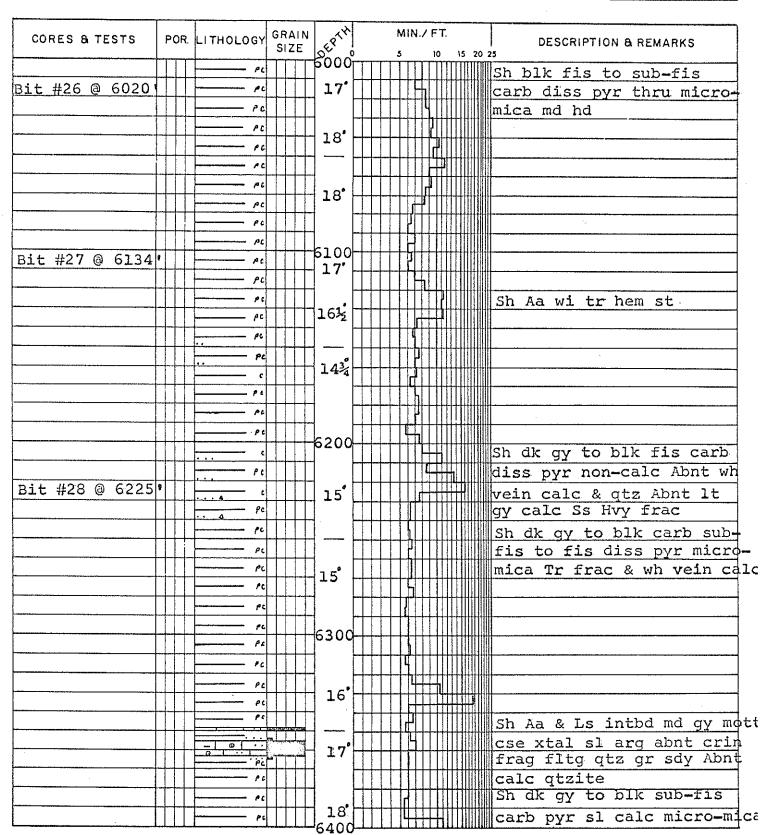
WELL NAME: INEXC	<u>et al</u>	. MALLA	RD YT	0-18	DATE: June 16-22/72
INTERVAL SHOWN:	5600	- 6000			PAGE NO. 15
CORES & TESTS PO	OR. LITHOL	OGY GRAIN	5600 T	MIN./FT.	DESCRIPTION & REMARKS
		7 / 6			
7.4: 1100 Q = 500 A		- (104	### (### ### ### ### ### ### ### ### ##	
Bit #22 @ 5628		<u> </u>	-		
		- c	┨		
		- ρε	┪━ ┼		
		- c			
		_ PC			
		- <i>p</i> c	12		
Bit # 1B & 23		- PC	5700	30 min	Core # 1 @ 5695-5715
@ 5695'		- PC			Rec 18' Sh blk fis
Bit #24 @5.715		- PC			1
		- PC	1 1		Sh dk gy to blk fis carb
		- PC			pyr calc to sl calc micro
		- Pc			mica
		— <i>Р</i> С			
	-	- ρε	4 1		
		— P6	131/2		
Bit #25 @5807'		'Ρι	5800		
DIC #25 @5007		- ρι - ρι			Sh Aa non-calc incr carb Occ th calc qtzite Mnr
		_ pc	1414		whbvein calc
		- PC	1		
		- PC			
		- РС	15° □		
		PC			
		ρι	┦ 。}┼		
		- Pt	_ 1.5′		
		- PL	5900		Sh Aa bcm sub-fis to blk
		- PC	1 _, +		SO AB OCH SUD-TIS TO DIK
·		- PC	15¾		
		- РС			
		- PC	16.		
		- PC	1 1		
		- 10	1 4		
		- p(16%		
		- ρι - ρι			<u> </u>
			-6aoo∐		

WELL NAME: INEXCO et al. MALLARD YT 0-18

DATE: June 23-25/72

INTERVAL SHOWN: 6000 - 6400

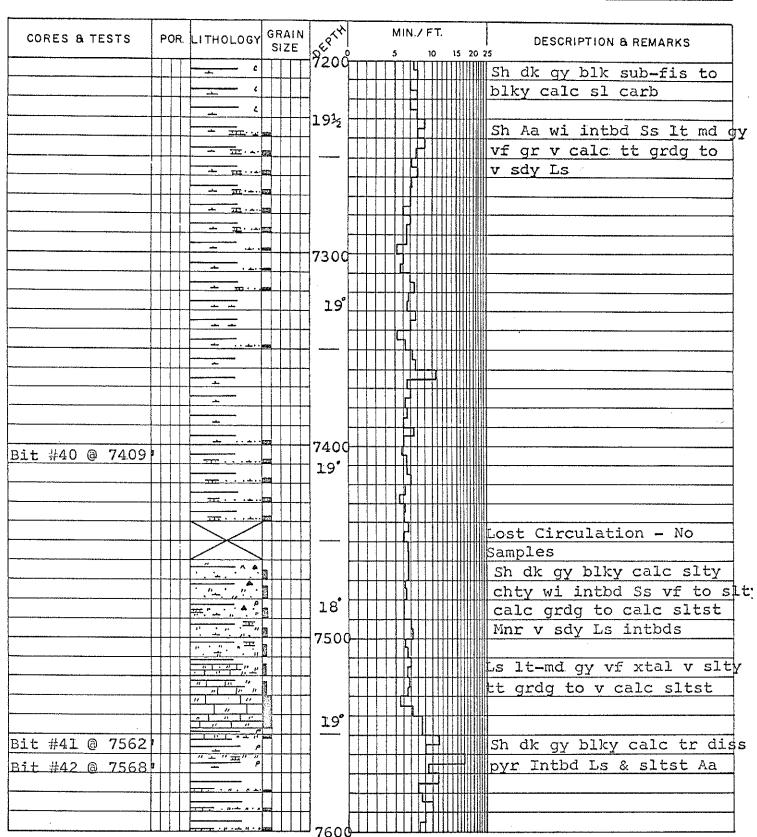
PAGE NO. 16



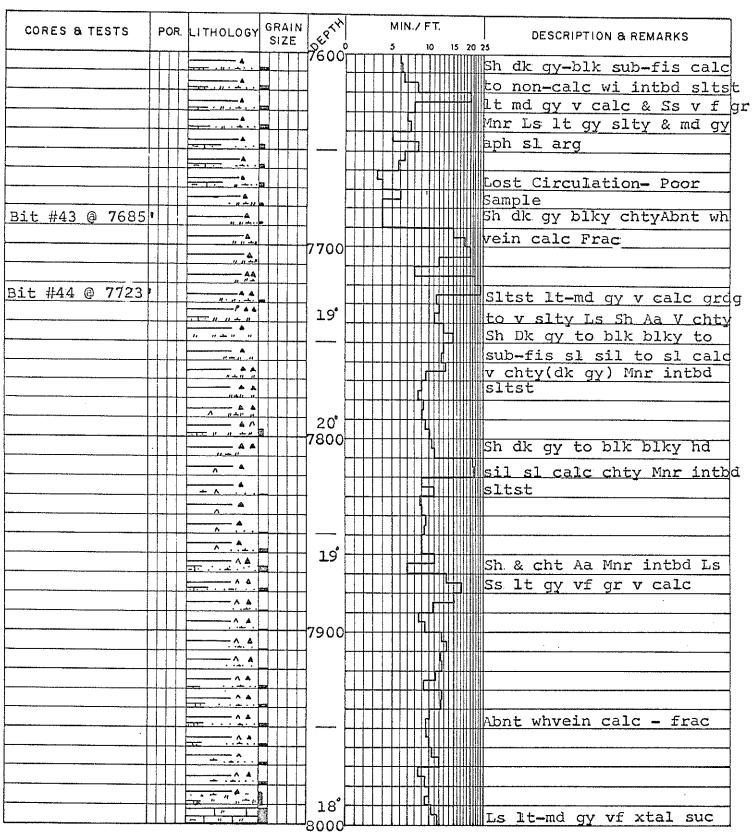
ITERVAL SHOWN:	6400 -	6800		PAGE NO. 17
CORES & TESTS	POR. LITHOLOGY	- CA O O-	MIN./ FT. 5 10 15 20	DESCRIPTION & REMARKS
		19½		
		20'		Sh dk gy to blk sub-fis mnr diss pyr carb micro-
	Pc Pc Pc	20'		mica Occ th calc qtzite
it #29 @ 6525	ρς	21°		
it #30 @ 6548	·	22'		Sh Aa & Ss lt-md gy p s Sub ang v calc grdg to sdy Ls tt
	· · · · · · · · · · · · · · · · · · ·	21°		Sh dk gy to blk carb sl
it #31 @ 6611'		6600		calc sub-fis diss pyr th
		22°		
	- PC			
it #32 @ 6706	- PC	6700		
				Sh dk gy blky to sub-fis
		19½		calc sl carb micro-mica

@ 6852 - 6874
Rec. 22' Sh dk
ar calc & sil blk Frac 90° to bd
blky v calc
mnr Ls intbds lt xtal sdy tt
7029-7053 Rec. 20 gy v f xtal sdy tbd Sh dk gy to
bd @ 30-40° b-fis non-calc
intbd Ls lt md g
v sdy grdg to nr Sh dk gy blk gy-blk cht

WELL NAME: INEXCO	et al.	MALLARD	YT	0-18	DATE: July	7-9/72
INTERVAL SHOWN:	7200	- 7600	····		PAGE NO	19



WELL NAME: INEXCO et al. MALLARD YT 0-18	DATE: July 10-13/72
INTERVAL SHOWN: 7600 - 8000	PAGE NO. 20



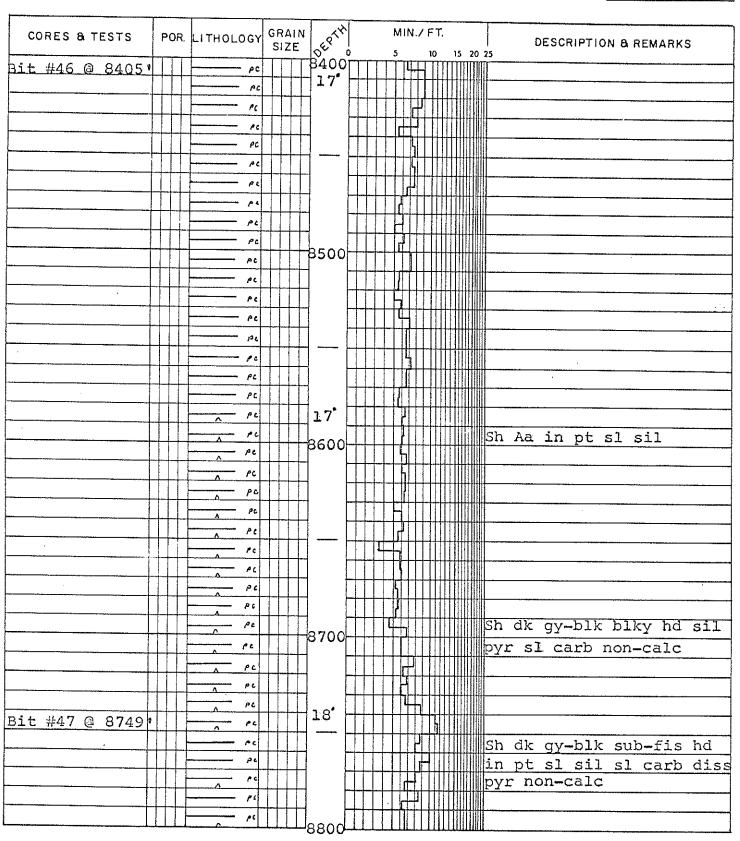
WELL NAME: INEXCO et al. MALLARD YT 0-18 DATE: July 14-16/72 INTERVAL SHOWN: 8000 - 8400 PAGE NO.____21 3000° POR LITHOLOGY GRAIN MIN./FT. CORES & TESTS DESCRIPTION & REMARKS 10 15 20 25 sl arg slty grdg to calc Bit #45 @ 8013 | sltst
Sh md gy blky calc wi mnr
calc sltst & slty Ls 16% Sh dk gy-blk sub-fis tr diss pyr sl carb Sh blk fis to sub-fis carb pyr non-calc in pt sl sil 8100 _1.7° PL 82:00 14 17/2 PC 8300

WELL NAME: INEXCO et al. MALLARD YT 0-18

DATE: July 17-18/72

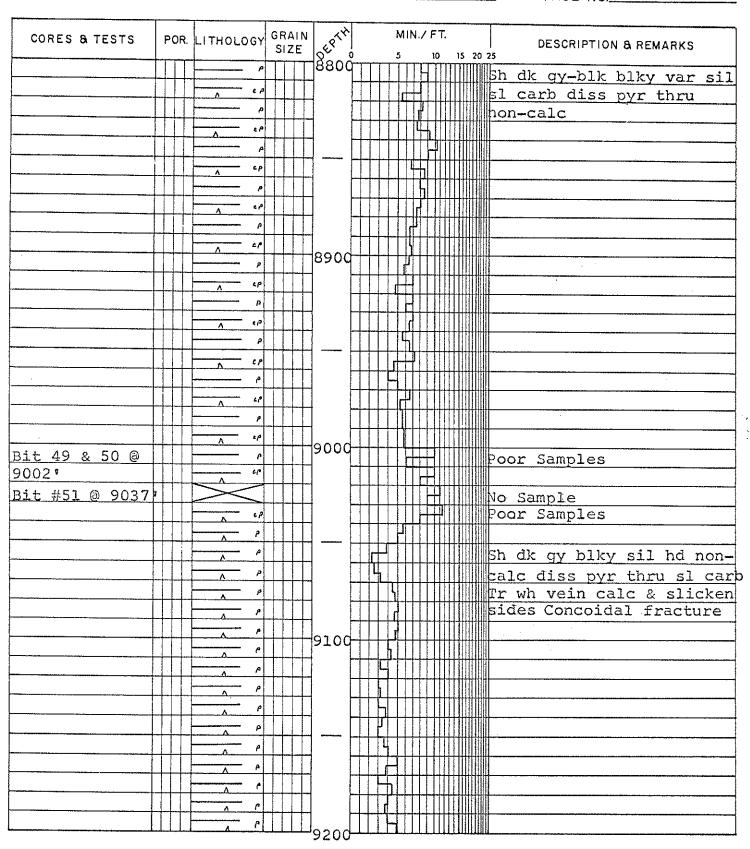
INTERVAL SHOWN: 8400 - 8800

PAGE NO.____22



 WELL NAME: INEXCO et al. MALLARD YT 0-18
 DATE: July 19-30/72

 INTERVAL SHOWN: 8800 - 9200
 PAGE NO. 23



LL NAME: INE	DATE: July 31-Aug 2	
ERVAL SHOWN:_	9200 - 9600	PAGE NO. 24
CORES & TESTS	POR. LITHOLOGY GRAIN SIZE OF 0 5 10 15 20 25	DESCRIPTION & REMARKS
	1 1 1 9 200 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	210	

\$300h

9400

18°

∳500°

< P

c p

Stuck 14 hrs @ 9490'

Sh dk gy to blk fis to sub fis sl carb & pyr in pt

sil hd Tr qtz filled frac

Sh Aa wi Sh dk gy-blk sub-

fis carb pyr Tr wh calc

Bit #52 @ 9462'

Bit #53 @ 9490

CP

WELL NAME: INEXCO et al. MALLARD YT 0-18 DATE: Aug 3-7/72 INTERVAL SHOWN: 9600 - 10,000 PAGE NO.___ 25___ POR LITHOLOGY GRAIN MIN / FT. CORES & TESTS DESCRIPTION & REMARKS SIZE 9600 Sh Aa bcm dk gy Sh dk gy sub-fis to blky
cl carb hd sil non-calc Bit 454 @ 9611 60 9700 3it #55 @ 97271 Sh Aa wi abnt wh vein gtz CP frac in pt carb Slty text-9800 Bit #56 @ 9802 21° Sh dk gy-blk sl carb v sil hd pyr concoidal fracture non-calc Tr qtz filled frac 9900 2.0° <u> Bit #57 @ 9936 </u>

. LIVANE SHOWIN-	10) ₉ 000 - 1	0,40	0		PAGE NO. 26	
CORES & TESTS	POR. LITHOLOGY S		GRAIN SIZE	1000g	MIN./FT. 5 10 15 20	DESCRIPTION & REMARKS	
		β β		1000p		23	
ALCO 112 ALC		A P		-			
it #58 @ 1004	3 9	P P				Sh Aa wi abnt wh vein qt	
3		P P					
		P P		-			
		^ P		0109			
		, p					
		^ P					
		^ P					
		Α ρ					
		^ P		L020 0			
		Λ P		10200			
		ρ Λ Β					
		A c P				Sh dk gy-blk sub-fis can sl sil non-calc tr nyr	
		c P				sl sil non-calc tr pyr Mnr blky sil Sh Aa	
		cp				IMI DIRY SII DII NA	
		- c p		L0309			
t #59 @ 10307	8	ο ο ρ Λ ο ρ		19½			
		- c p					
		Α Α					
	[۸ ۲ ۲				Sh Aa & blky sil hd Sh	

		LU.	,400 -1	0.,	500		, <u>, , , , , , , , , , , , , , , , , , </u>		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	PAGE NO. 27
CORES & TESTS	P	OR.	LITHOLOGY	GR SI	ZE	6406T	MIN./FT. 5 10 15 20 :			DESCRIPTION & REMARKS
	+	+	C /2			4.00		$\frac{1}{1}$		
	1		A C P	 	+			╫		Ch Ac shot Core Sill a
			^							Sh Aa abnt frac filled qtz & mnr calc
		-	~ c p							
	++-			111	+	-				
			^ ^		+	21				
				\Box	++					Core #4 @ 10475-492 Rec 7° Sh dk gy-blk blk
			c r	Ш		050		$\dagger\dagger\dagger$		v hd sil pyr non-calc i
	+				1	0500				
-	+			\vdash	+			444		
79112	+++	+		H	+H	<u> </u>		+ + +		
	† † †	\parallel				 - 				
								\Box		
	+++	\dashv		- -						
	+++	+		$\dashv \vdash$						
		+		+	++1	0.604				
- AHP										A CONTRACTOR OF THE CONTRACTOR
	$\downarrow\downarrow\downarrow$	$\perp \mid$								
	$+\!+\!+$	4		4						
	+++	+		$+\!\!+\!\!\!+$	+	— 				
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A	+++	\dashv		+	444		1111			
	H	+		╫	++		+			
		$\dagger \dagger$		+	++					
				\dagger						
		П								
	Ш.	1		\prod						
	1	$\perp \perp$								The state of the s

SECTION V

<u>ANALYSIS</u>

INEXCO et al MALLARD YT 0-18

- (a) <u>CORE ANALYSIS</u>

 Although four cores were cut in this well, none were analyzed.
- (b) WATER ANALYSIS

 None
- (c) GAS ANALYSIS

 None
- (d) <u>OIL ANALYSIS</u>
 None