

COMPLETION REPORT

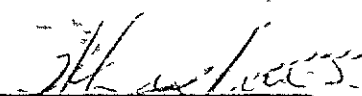
of the

D R I L L I N G and T E S T I N G

of

HEMISPHERE HELIUM PEERLESS SARNOIL LUNDAR PROV.
14-17-20-5

LSD. 14, SEC. 17, TWP. 20, RGE. 5 WPM


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TABLE OF CONTENTS.

	<u>Page No.</u>
Pertinent Data	1
Stratigraphy	2
Daily Progress Report	3
Sample Descriptions	5
Drilling Time Record	10
Abandonment Programme & D S T - Summary .	13
Bariod Mud Sample Results	14
Logs	Pocket

PERTINENT DATA

Name of Company	Sarnoil Ltd.
Name of Well	Hemisphere Helium Peerless Sarnoil Lundar Prov. 14-17-20-5
Legal Description	Lsd. 14, Sec. 17, Twp. 20, Rge. 5 WPM .
Co-Ordinates	660 S of N & 660 W. of E.
Status of Well	Dry and Abandoned.
Drilling Contractor	Sedco Exploration.
Elevation	Ground 835' Kelly Bushing 840'
Total Depth	Drillers 1070' Schlumberger 1073'
Spud Date	8 00 A.M., June 30, 1962
Completion Date	July 14, 1962 - 7 00 P.M.
Rig Released	July 19, 1962.
Logs Taken	Induction Electric Log - 1068-191' Sonic Log 1068-191' Micro-Logging did not work.
Casing.	7" 20pds , J55 used 190 feet cement with 40 sacks cement plus 120 pds of CaCl ₂ displaced with 6½ barrels water

STRATIGRAPHY

Elevations	Ground 835'	- K.B.	840'
<u>Formations</u>	<u>Sample</u>	<u>E-Log</u>	<u>Subsea</u>

SILURIAN

Interlake group Surface to 448

ORDOVICIAN

Stony Mtn. Shale	452	448	‡ 392
Red River	512	512	‡ 328
Winnipeg Shale	933	933	(- 93)
Winnipeg Sand	1000	1000	(- 160)

PRE-CAMBRIAN

1069 (- 229)

TOTAL DEPTH	1073 Schlumberger
	1070 Drillers

DAILY PROGRESS REPORT

June 30, 1962	70'	TD	Spud H H Peerless Sarnoil Lundar Prov 14-17-20-5 at 8 00 a m on June 30 with a 6½ inch bit. Additives 15 sax Gel.
July 1, 1962	205'	TD	Drilling 6½ inch Surface hole Survey at 140 feet 1°
July 2, 1962	310'	TD	Bit No.3 to 310,, Reaming Bit No 4 7-7/8" 0' to 70'
July 3, 1962	240	Ream	Bit No. 4 7-7/8" reaming 7-7/8" hole Additives 7 sax Gel, 2 sax sawdust.
July 4, 1962	270	Ream	Reaming 7-7/8" hole.
July 5, 1962	310	Ream	Reaming preparing to run casing
July 6, 1962	310	TD.	Running 7" casing shoe at 190 feet, cemented with 40 sax cement and 120 lbs. Ca Cl ₂ displaced with 6½ barrels water. Digging cellar. Cut off casing W O.C Welded casing, Rigging up B O P. Pressured up to 500# held o.k. Drill out at 7 00 p.m Friday, July 6, 1962.
July 7, 1962	375	TD	Drilling 6½ inch hole Broke crosshead in Pump, ordered same from Calgary, renewed drilling at 9 00 p m. same day
July 8, 1962	480	TD	Bit No 4 6½" Survey at 445' 1½°. Still using water for drilling mud
July 9, 1962	580	TD	Drilling twist off at 360 feet Pull out ran in and recovered fish. Drilling ahead Bit plugged on bottom Pull out and cleaned bit.
July 10, 1962	630	TD	Bit No 5 6½ inch Drilling Repairing Pump and starter on Rig motor. Conditioned hole and drilling ahead.
July 11, 1962	735	TD	Twisted off, fishing, recovered pipe Drilling ahead.
July 12, 1962	845	TD	Drilling bit #6 6½ Survey at 780' 1-3/4° <u>Circulate Sample 1 hour</u>

July 13, 1962	910	TD	Drilling with Bit #7 6½ Twisted off
July 14, 1962	1073		Run in Recovered fish. Drilling ahead, <u>reached Total Depth</u> <u>at 7 00 p.m</u> Circulated approximately <u>1½ hours</u> Additives 10 sax Gel Began day work at approximately 7 00-p.m July 14, 1962.
July 15, 1962	1078	TD	Logging, Running Induction Electric Log and Porosity Sonic Log Attempt
Driller	1070	TD	to run Micro-Log failed.
Schlumberger	1073	TD	Waiting on Johnston Testers.
July 16, 1962	1073	TD	Running D S T Test No One, see D S.T details
July 17, 1962		TD	Running D S T No Two, see D S T details.
July 18, 1962	1073	TD	Waiting on Bariod mud sample tests results Running Plugs. Plug No 1 958 - 1072 ft 30 sax cement, feel after 12 hours
July 19, 1962	1073	TD	Plug No 2 - 570 - 608 ft. - 15 sax cement 3% CaCl ₂ . Rig release July 19, 1962.

SAMPLE DESCRIPTIONH H PEERLESS SARNOIL LUNDAR PROV 14-17-20-5 WPM.DRIFT

Surface to 10' Limestone tan, earthy, powdery, argillaceous, marly slightly fossiliferous in part, soft, clayey Occasional hard light coloured vitrious Dolomite chips.

10' - 20' Limestone as above.

EROSIONAL SURFACE - INTERLAKE GROUP - 25

20' - 30' Numerous Quartz, feldspars mixed with tan earthy dense Limestone and Dolomite cuttings

30' - 40' Dolomite white crypto-crystalline, slightly fossiliferous, platy, slightly vitrious, trace of calcite crystals, hard.

40' - 50' Marly clay brownish grey, soft, with floating well rounded brown red chert pebbles, some Feldspars, Quartz dolomite and limestone chips probably ferruginous in part

50' - 60' Dolomite white to tinted brick red crypto-crystalline, slightly ferruginous, occasional stringers brick red ferruginous argillaceous marly clay present. Trace of Pyrite and fossiles in small parts.

60' - 70' Dolomite as above with trace of poor leached porosity - no cut, stain or odor.

70' - 80' Dolomite white to tinted brick red crypto-crystalline, vitrious ferruginous, contaminated with brick red marly clay Sucrosic in part with some apparent leached porosity Porosity appears to be good No cut, stain or odor.

80' - 90' Dolomite white to greyish crypto-crystalline, earthy to slightly vitrious, slightly argillaceous hard, traces ferruginous Dolomite as above. Trace poor pin point porosity. No cut, stain or odor.

90' - 100' Dolomite calcitic white dense to finely crystalline, earthy to slightly vitrious, hard.

100' - 110' Dolomite calcitic dense finely crystalline earthy to vitrious hard.

110' - 120' Dolomite white dense earthy opaque slightly calcitic, blocky hard

120' - 130' Dolomite as above

130' - 140' Dolomite calcitic white earthy dense appears sucrosic Dolomite Trace some fair pin point porosity . No cut, stain or odor

140' - 150' Calcitic Dolomite as above with traces stringer of fair sucrosic porosity

150' - 160' Calcitic Dolomite as above

160' - 170' Dolomite white crypto-crystalline calcitic, trace some very poor pin point porosity.

170' - 180' Dolomite as above with occasional traces sucrosic to leached porosity

180'	-	190'	Dolomite white finely crystalline to slightly sucrosic blocky, traces some <u>good pin point porosity</u> No cut, stain or odor.
190'	-	200'	Dolomite calcitic white dense earthy platy hard
200'	-	210'	Dolomite calcitic white lithographic earthy blocky hard
210'	-	220'	Dolomite as above
220'	-	230'	Dolomite calcitic white lithographic earthy blocky, trace pyritic in small parts, hard.
230'	-	240'	Dolomite as above appearance brick red argillaceous, ferruginous Dolomite, trace Quartz.
240'	-	250'	Dolomite as above
250'	-	260'	Dolomite as above, appears sucrosic. Dolomite showing <u>fair pin point porosity</u> No cut, stain or odor
260'	-	270'	Dolomite calcitic white lithographic earthy hard. Appearance of some <u>o-olitic Dolomite</u>
270'	-	280'	Dolomite calcitic lithographic to very <u>o-olitic</u> earthy hard
280'	-	290'	Dolomite calcitic lithographic occasional o-olitic earthy hard
290'	-	300'	Dolomite calcitic lithographic earthy hard, trace o-olitic
300'	-	310'	Dolomite calcitic , lithographic earthy blocky hard.
310'	-	320'	Dolomite as above
320'	-	330'	Dolomite as above with appearance of <u>o-olitic Dolomite</u>
330'	-	340'	Dolomite calcitic crypto-crystalline earthy to vitrious, trace occasional <u>poor pin point porosity</u> No cut, stain or odor.
340'	-	350'	Dolomite as above Appearance of brick red ferruginous Dolomite Angular to rounded Quartz and Feldspars common
350'	-	360'	Dolomite white calcitic earthy blocky hard Traces of Quartz and Feldspars.
360'	-	370'	Dolomite white earthy crypto-crystalline, finely chipped hard.
370'	-	380'	Dolomite as above Trace occasional <u>poor pin point</u> porosity No cut, stain or odor
380'	-	390'	Dolomite as above - no porosity
390'	-	400'	Dolomite, white lithographic earthy, platy, hard
400'	-	410'	Dolomite light brick red tented earthy dense argillaceous, ferruginous
410'	-	420'	Dolomite white dense finely crystalline platy hard
420'	-	430'	Dolomite as above
430'	-	440'	Dolomite white light brick red tented common, earthy dense argillaceous, ferruginous, platy hard
440'	-	450'	Dolomite, white light brick red tented, common, earthy dense, argillaceous ferruginous, platy.

DRILLING	440	-	42 min.
	445	-	52 min
	450	-	53 min
	455	-	27 min
	460	-	30 min

STONY MTN SHALE 452 (f 383)

450'	-	460'	Shale Dolomitic grey, green, brick red ferruginous, slightly calcareous, soft blocky
460'	-	470'	Shale as above
470'	-	480'	Shale as above
480'	-	490'	Shale as above
490'	-	500'	Shale as above
500'	-	510'	Shale as above

TOP RED RIVER 512' (f 232)

510'	-	520'	Dolomite white light grey finely crystalline to sucrosic vitrious, show <u>excellent porosity</u> with no stain, cut or odor
520'	-	530'	Dolomite, white light grey earthy dense soft.
530'	-	540'	Dolomite calcitic dense to finely crystalline, trace sucrosic, earthy to slightly vitrious
540'	-	550'	Dolomite calcitic. Finely crystalline to sucrosic white to yellowish to light orange. Vitrious, probably Feldspathic Dolomite Some <u>good porosity</u> with no stain, cut or odor
550'	-	560'	Dolomite, white yellowish lithographic to slightly crystalline, hard
560'	-	570'	Dolomite as above
570'	-	580'	Dolomite, light grey lithographic earthy clayey blocky Dolomite, as above, hard
580'	-	590'	Dolomite, light grey lithographic earthy clayey slightly argillaceous, blocky hard
590'	-	600'	Dolomite, light grey white lithographic, earthy clayey, slightly argillaceous in parts, blocky hard.
600'	-	610'	Dolomite as above
610'	-	620'	Dolomite as above, occasional coloured tan
620'	-	630'	Dolomite as above
630'	-	640'	Dolomite as above
640'	-	650'	Dolomite, light grey to light tan calcitic finely crystalline earthy, occasional trace <u>poor pin point porosity</u> , no shows
650'	-	660'	Dolomite as above
660'	-	670'	Calcitic tan Dolomite as above - no shows
670'	-	680'	Dolomite, tan finely crystalline - sucrosic vitrious, blocky Some <u>fair pin point porosity</u> - no shows
680'	-	690'	Dolomite as above, trace some <u>poor porosity</u> - <u>no shows</u> Occasional thin stringer white limestone and marl.
690'	-	700'	Dolomite, brown tan finely crystalline to sucrosic earthy to vitrious, occasional small calcite crystals. Some <u>good pin point porosity</u> No shows.
700'	-	710'	Limestone Dolomite, tan fragments, earthy to slightly vitrious, slightly fossiliferous sucrosic in small parts, possibly some poor pin point porosity No shows
710'	-	720'	Limestone as above
720'	-	730'	Limestone as above

730'	-	740'	Limestone tan to brown fragments earthy, argillaceous occasional flecks brown argillaceous material within the limestone Slightly fossiliferous in parts possibly some poor pin point porosity No shows
740'	-	750'	Limestone white to light tan, earthy fragments, slightly fossiliferous, slight argillaceous flecked.
750'	-	760'	Dolomite tan finely crystalline to sucrosic, occasional calcite inclusions, slightly fossiliferous, some <u>good</u> pin point porosity, no shows
760'	-	770'	Dolomite calcitic tan earthy sucrosic, <u>some good pin</u> point porosity, no shows.
770'	-	780'	Limestone white dense earth powdery slightly fossiliferous in part Occasional argillaceous streak Porosity at 782
780'	-	785	Dolomite calcitic finely crystalline to sucrosic with <u>good pin point to possibly small vuggy porosity</u> . No shows
785'	-	790'	Dolomite calcitic finely crystalline to sucrosic <u>good pin point to small vuggy porosity</u> , occasional inclusions of pyrite and some unknown black material No shows.
790'	-	800'	Dolomite calcitic sucrosic as above with good pin point <u>porosity and small vuggy porosity</u> No shows
800'	-	810'	Dolomite as above appearance of Limestone fossiliferous white earthy.
810'	-	820'	Interbeds of porous Dolomite and Limestone as above - no shows with occasional argillaceous streaks.
820'	-	830'	As above
830'	-	840'	Interbeds Limestone and Dolomite <u>No porosity</u>
840'	-	850'	Limestone white to light gray earthy slightly argillaceous in parts, occasional argillaceous streaks and flecks
850'	-	860'	Limestone as above.
860'	-	870'	Limestone as above becoming argillaceous
870'	-	880'	Limestone as above
880'	-	890'	Limestone white light gray, earthy slightly fossiliferous dense, occasional trace of pyritic argillaceous
890'	-	900'	Limestone as above, Trace poor pin point porosity, no shows.
900'	-	910'	Limestone as above, trace very poor pin point porosity, no shows.
910'	-	920'	Limestone as above - no shows
920'	-	930'	Limestone as above becoming more argillaceous
			<u>Winnipeg Shale - 933</u>
930'	-	940'	Shale brown streaky ferruginous soft, some white calcite Siltstone, and soft white Limestone
940'	-	950'	Clay green soft sticky numerous floating sand grains
950'	-	960'	Clay green sandy sticky soft , as above
960'	-	970'	Clay as above,
970'	-	980'	Clay as above
980'	-	990'	Shale green blocky waxy pyrite common Some black rounded chert Sandstone white calcite, poorly sorted silty. No shows
990'	-	1000'	Sandstone white, traces of black dirty looking sandstone, slightly calcite, quartzose well sorted medium grained

	glauconitic in part. Pyritic in small part. Traces of some good porosity, no shows
1000' - 1010'	Sandstone, white traces blackish tinted Quartzose, medium grained, slightly calcitic, friable glauconitic in some part, well sorted pyritic in part Some good porosity, No shows.
1010' - 1020'	Sandstone as above, matrix appears to be kaolinic. Good porosity, no shows
1020' - 1030'	White Sandstone as above with traces blackish fine grained quartzose. Sandstone and Silstone porosity good. No shows.
1030' - 1040'	Sandstone as above Good porosity No shows.
1040' - 1050'	Sandstone as above Traces tan Limestone
1050' - 1060'	Sandstone, white good porosity with some coarse grained sand and quartz pebbles, rounded to angular black chert pebbles, pyritic and pyritic sand with good porosity No shows. Traces of basement Feldspares and biotite
1060' - 1069'	Granite, pinkish to white composed of Quartz Feldspares, Biotite, unknown black mineral, speckled black and white in part, partly all pinkish and white, with occasional green argillaceous inclusion.

The Winnipeg Sandstone contains numerous sand pieces that appear to be oil stain, however, there is no cut or fluorescence when under the Fluorescope. This may be possibly dead oil staining.

DRILLING TIME RECORD

<u>From</u>	<u>Depth</u>	<u>To</u>	<u>Minutes to</u> <u>Drill</u>	<u>Remarks</u>
335		340	55	
340		345	55	
345		350	60	
350		355	68	
355		360	75	
360		365	40	
365		370	39	
370		375	34	
375		380	37	
380		385	67	
385		390	62	
390		395	89	
395		400	78	
400		405	73	
405		410	90	
410		415	79	
415		420	90	
420		425	75	
425		430	62	
430		435	78	
435		440	42	
440		445	52	
445		450	53	
450		455	27	
455		460	30	
460		465	31	
465		470	35	
470		475	24	
475		480	33	
480		485	30	
485		490	28	
490		495	19	
495		500	29	
500		505	38	
505		510	30	
510		515	30	
515		520	43	
520		525	37	
525		530	34	
530		535	30	
535		540	6	
540		545	26	
545		550	85	
550		555	100	
555		560	118	
560		565	62	
565		570	45	

<u>From</u>	<u>Depth</u>	<u>To</u>	<u>Minutes to Drill</u>	<u>Remarks</u>
570		575	53	
575		580	70	
580		585	155	
585		590	133	
590		595	162	
595		600	125	
600		605	72	
605		610	40	
610		615	58	
615		620	75	
620		625	34	
625		630	80	
630		635	80	
635		640	70	
640		645	50	
645		650	35	
650		655	57	
655		660	37	
660		665	50	
665		670	37	
670		675	30	
675		680	40	
680		685	43	
685		690	38	
690		695	50	
695		700	52	
700		705	43	
705		710	43	
710		715	47	
715		720	55	
720		725	50	
725		730	100	
730		735	61	
735		740	85	
740		745	68	
745		750	47	
750		755	23	
755		760	30	
760		765	35	
765		770	63	
770		775	77	
775		780	97	
780		785	45	
785		790	20	
790		795	28	
795		800	26	
800		805	25	
805		810	50	
810		815	50	
815		820	41	

<u>From</u>	<u>Depth</u> <u>To</u>	<u>Minutes to</u> <u>Drill</u>	<u>Remarks</u>
820	825	35	
825	830	54	
830	835	56	
835	840	58	
840	845	70	
845	850	78	
850	855	97	
855	860	125	
860	865	93	
865	870	73	
870	875	78	
875	880	78	
880	885	82	
885	890	75	
890	895	78	
895	900	87	
900	905	80	
905	910	62	
910	915	103	
115	920	89	
920	925	82	
925	930	90	
930	935	40	
935	940	18	
940	945	19	
945	950	14	
950	955	19	
955	960	9	
960	965	12	
965	970	17	
970	975	15	
975	980	14	
980	985	17	
985	990	21	
990	995	22	
995	1000	13	
1000	1005	17	
1005	1010	5	
1010	1015	7	
1015	1020	5	
1020	1025	13	
1025	1030	4	
1030	1035	6	
1035	1040	4	
1040	1045	10	
1045	1050	12	
1050	1055	34	
1055	1060	27	
1060	1065	31	
1065	1068	46	Granite
1068	1069	very hard	

DRILL STEM TESTS

- D.S.T # 1 1002 - 1073 ft. Winnipeg Sandstone.
 valve open 45 minutes. Reset. Valve open
 30 minutes, shut in 30 minutes.
 Good initial puff, very strong air blow to surface
 immediately, remained very strong for 15 minutes,
 then dead for remainder of test. Packer reset
 after 45 minutes, thinking tool may be plugged,
 however chart indicated no plugging.
 Recovered 900 feet of slightly salty water.
 IHP - 494, FHP - 490, IFP - 375, FFP - 400,
 FSIP - 400
 Good test.
- D.S T. # 2 512 - 556 ft. Red River (Straddle)
 Valve open 1 hour, shut in 30 minutes.
 Good initial puff, strong air blow immediately
 remained strong for 20 minutes, then decreased
 to weak to very weak to dead in 35 minutes
 Recovered 474 feet fresh water rose to within
 40 feet of surface in one hour.
 IHP - 260, FHP - 240 , IFP 70, FFP - 210, SIP - 210.

PLUGGING PROGRAM

- Plug # 1 950 to Total Depth - 30 sacks. Waiting on Cement
 for 12 hours, then feel for plug.
- Plug # 2 570 - 608 feet - 15 sacks cement.
 Well left as water well to farmer,
 producing from Red River formation



WELL _____
 COMPANY H.H. PEERLESS SAPOIL
 COUNTY _____
 STATE CANADA

MUD ANALYSIS — PPM
 HYDROCARBONS

7-13-62

14.

DEPTH	C ₁	C ₂	C ₃	IC ₄	nC ₄	C ₅ +	Helium PPM	C ₆ +
400	100	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	
10	90	0	0	0	0	0	0	
15	120	0	140	0	0	0	0	
20	150	0	0	0	0	0	0	
25	160	0	0	0	0	0	0	
30	130	0	0	0	0	0	0	
35	150	0	0	0	0	0	0	
40	140	0	0	0	0	0	0	
45	150	0	0	0	0	0	0	
50	120	0	0	0	0	0	0	
55	150	0	0	0	0	0	0	
490	200	0	0	0	0	0	0	
95	140	0	0	0	0	0	0	
500	120	0	0	0	0	0	0	
5	200	0	0	0	0	0	0	
10	200	0	0	0	0	0	0	
15	160	0	0	0	0	0	0	
20	250	0	0	0	0	0	0	
Jukes #1	300	0	0	0	0	0	0	
" #2	150	0	0	0	0	0	0	
" #3	220	0	0	0	0	0	0	
775	40	0	0	0	0	0	0	7-11-62
780	75	0	0	0	0	0	0	
785	200	0	0	0	0	0	0	
790	60	0	0	0	0	0	0	
795	60	0	0	0	0	0	0	
800	70	0	0	0	0	0	0	
805	40	0	0	0	0	0	0	
810	60	0	0	0	0	0	0	
815	60	0	0	0	0	0	0	
820	60	0	0	0	0	0	0	
825	50	0	0	0	0	0	0	
830	60	0	0	0	0	0	0	
835	60	0	0	0	0	0	0	
840	60	0	0	0	0	0	0	
845	60	0	0	0	0	0	0	

FWL-27



WELL _____
 COMPANY H. H. PEERLESS SARWOL
 COUNTY _____
 STATE CANADA

MUD ANALYSIS — PPM
 HYDROCARBONS

7-16-62

DEPTH	C ₁	C ₂	C ₃	IC ₄	nC ₄	C ₅₊	HELIUM PPM	C ₆₊
- 850	120	0	0	0	0	0	0	
55	30	0	0	0	0	0	0	
60	30	0	0	0	0	0	0	
65	30	0	0	0	0	0	0	
70	50	0	0	0	0	0	TR	
75	60	0	0	0	0	0	0	
80	30	0	0	0	0	0	0	
85	30	0	0	0	0	0	0	
90	40	0	0	0	0	0	0	
								7-17-62
525	220	0	0	0	0	0	0	
30	230	0	0	0	0	0	0	
35	180	0	0	0	0	0	0	
40	150	0	0	0	0	0	0	
45	180	0	0	0	0	0	0	
50	80	0	0	0	0	0	0	
55	120	0	0	0	0	0	0	
60	120	0	0	0	0	0	0	
65	180	0	0	0	0	0	0	
70	70	0	0	0	0	0	0	
75	120	0	0	0	0	0	0	
80	150	0	0	0	0	0	0	
85	50	0	0	0	0	0	0	
90	50	0	0	0	0	0	0	
95	30	0	0	0	0	0	0	
600	50	0	0	0	0	0	0	
5	30	0	0	0	0	0	0	
10	60	0	0	0	0	0	0	
15	120	0	0	0	0	0	0	
20	120	0	0	0	0	0	0	
25	180	0	0	0	0	0	0	
30	160	0	0	0	0	0	0	
35	60	0	0	0	0	0	0	
40	40	0	0	0	0	0	0	
45	60	0	0	0	0	0	0	
50	90	0	0	0	0	0	0	

FWL-27



WELL _____
 COMPANY H H Peerless SARWELL
 COUNTY (ADAIP OIL MANAGEMENT)
 STATE ALBERTA CANADA

MUD ANALYSIS — PPM
 HYDROCARBONS

7-17-62

DEPTH	C ₁	C ₂	C ₃	IC ₄	nC ₄	IC ₅₊	HELIUM PPM	C ₆₊
55	30	0	0	0	0	0	0	
60	30	0	0	0	0	0	0	
65	60	0	0	0	0	0	0	
70	50	0	0	0	0	0	0	
75	30	0	0	0	0	0	0	
80	180	0	0	0	0	0	0	
85	180	0	0	0	0	0	0	
90	30	0	0	0	0	0	0	
95	50	0	0	0	0	0	0	
700	60	0	0	0	0	0	0	
5	60	0	0	0	0	0	0	
10	60	0	0	0	0	0	0	
15	40	0	0	0	0	0	0	
20	30	0	0	0	0	0	0	
25	60	0	0	0	0	0	0	
30	30	0	0	0	0	0	0	
35	60	0	0	0	0	0	0	
40	240	0	0	0	0	0	0	
45	60	0	0	0	0	0	0	
50	180	0	0	0	0	0	0	
55	360	0	0	0	0	0	0	
60	80	0	0	0	0	0	0	
65	60	0	0	0	0	0	0	
70	60	0	0	0	0	0	0	
								7-18-62
95	80	0	0	0	0	0	0	
900	60	0	0	0	0	0	Tr	
5	120	0	0	0	0	0	0	
10	180	0	0	0	0	0	0	
15	60	0	0	0	0	0	0	
20	180	0	0	0	0	0	0	
25	140	0	0	0	0	0	0	
30	180	0	0	0	0	0	0	
35	180	0	0	0	0	0	0	
100	100	0	0	0	0	0	Tr	

FWL-27



WELL _____
 COMPANY H H PEERLESS SARNOB
 COUNTY _____
 STATE CANADA

MUD ANALYSIS — PPM
 HYDROCARBONS

7-18-62

DEPTH	C ₁	C ₂	C ₃	IC ₄	nC ₄	IC ₅	Helium nC ₈	C ₆₊
945	120	0	0	0	0	0	0	
50	30	0	0	0	0	0	0	
55	30	0	0	0	0	0	0	
60	30	0	0	0	0	0	Tr	
65	40	0	0	0	0	0	0	
70	60	0	0	0	0	0	Tr	
75	30	0	0	0	0	0	0	
80	50	0	0	0	0	0	Tr	
85	40	0	0	0	0	0	0	
90	40	0	0	0	0	0	0	
95	40	0	0	0	0	0	0	
1000	30	0	0	0	0	0	0	
5	40	0	0	0	0	0	0	
10	60	0	0	0	0	0	0	
15	60	0	0	0	0	0	0	
15 ^{Spaced} Bar	60	0	0	0	0	0	Tr	
15	30	0	0	0	0	0	0	
20	60	0	0	0	0	0	0	
25	60	0	0	0	0	0	0	
30	60	0	0	0	0	0	0	
35	40	0	0	0	0	0	0	
40	30	0	0	0	0	0	Tr	
45	60	0	0	0	0	0	0	
50	40	0	0	0	0	0	0	
55	60	0	0	0	0	0	0	
60	60	0	0	0	0	0	0	
65	70	0	0	0	0	0	0	
70	60	0	0	0	0	0	0	
DST 1000-1069 BOTTLE #1	300	0	0	0	0	0	Tr	
#2	80	0	0	0	0	0	TR	
#3	80	0	0	0	0	0	TR	
#4	70	0	0	0	0	0	TR	
DST 1000-1069 BOTTLE #1	PPM HELIUM REPORTED ON THESE						200	
#2	4 LINES IS THE PPM HELIUM						1500	
#3	IN THE GAS BARR. TRAP & BETWEEN						2000	
#4	THE BOTTLE OF T MUD SURFACE						1500	

FML-27

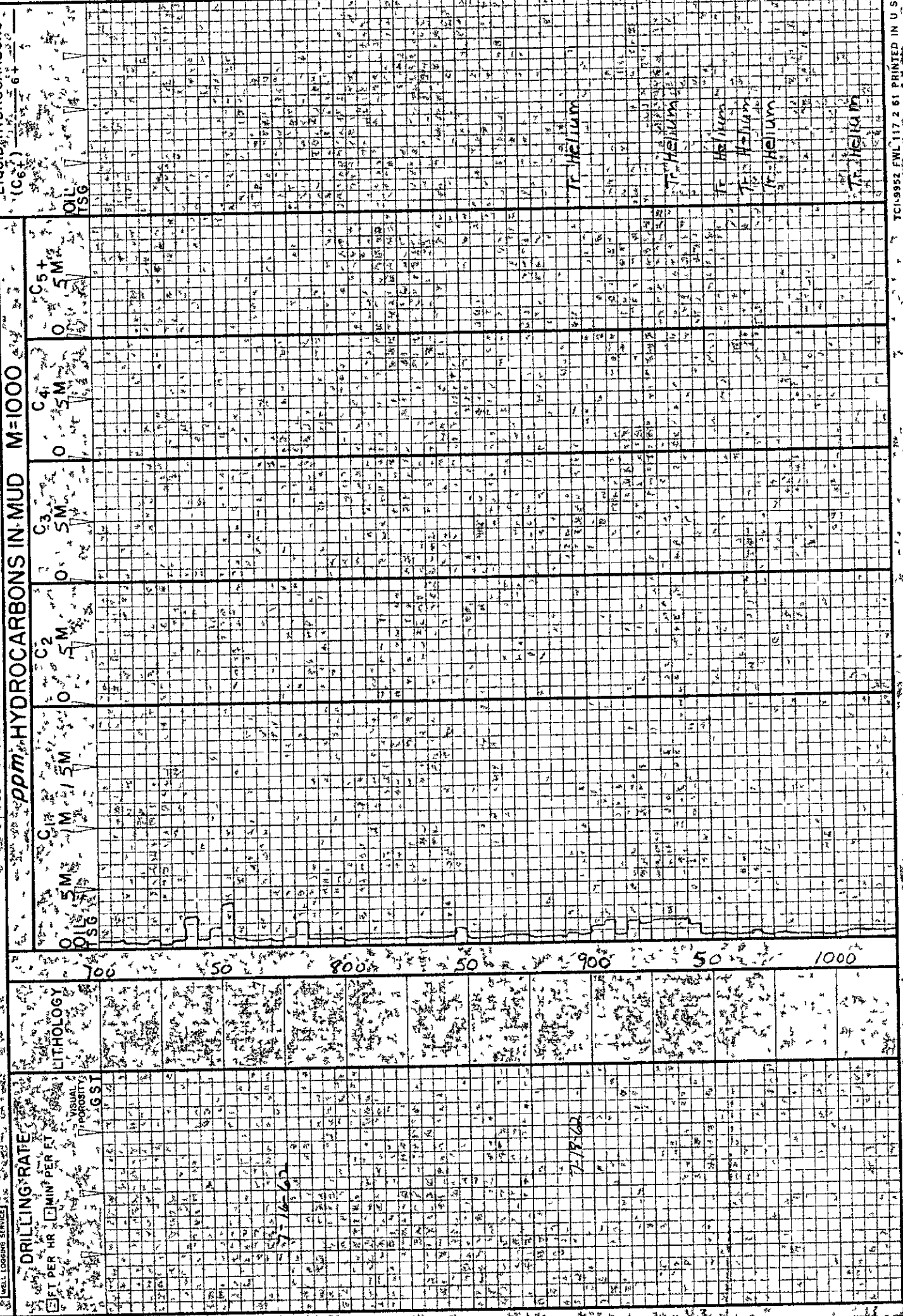


WELL COMPANY: HAROLD PEERLESS SARWOLL
 COUNTY: ...
 STATE: CANADA

LEGEND:
 DRILL CORRESPONDS
 PIPE MEASUREMENTS
 NB NEW BIT
 NCB NEW CORE BIT
 DST DRILL STEM TEST
 NR NO RETURNS
 TG TRIP GAS
 CO CIRCULATE OUT RETURNS

LITHOLOGY:
 SAND
 GRANITE WASH / LIME STONE
 SHALE
 GYP ANHYDRITE
 DOLOMITE

CUTTINGS ANALYSIS
 TOTAL GAS
 METHANE
 LIQUID HYDROCARBONS (C₆+)
 OIL
 TSS





WELL LOGGING V.C.

WELL COMPANY H.H. PEERLESS SARNOIA COUNTY CANADA STATE

DRILLING RATE

□ FT PER HR □ MIN PER FT

7-18-62

VISUAL POROSITY GST

LEGEND DEPTH CORRESPOND DRILL MEASUREMENTS NB NEW BIT NCB NEW CORE BIT DST DRILL STEM TEST NR NO RETURNS TG TRIP GAS CO CIRCULATE OUT RETURNS

LITHOLOGY SAND GRANITE WASH LIME STONE GYP ANHYDRITE DOLOMITE SHALE

CUTTINGS ANALYSIS TOTAL GAS METHANE LIQUID HYDROCARBONS (C6+) 6+

LITHOLOGY		ppm HYDROCARBONS IN MUD M=1000					OIL TSG	
DRILLING RATE	VISUAL POROSITY	C1	C2	C3	C4	C5+	Tr. Helium	
7-18-62	GST	0.5M	0.5M	0.5M	0.5M	0.5M	0	0
		1M	0.5M	0.5M	0.5M	0.5M	0	0
		1.5M	0.5M	0.5M	0.5M	0.5M	0	0
		2M	0.5M	0.5M	0.5M	0.5M	0	0
		2.5M	0.5M	0.5M	0.5M	0.5M	0	0
		3M	0.5M	0.5M	0.5M	0.5M	0	0
		3.5M	0.5M	0.5M	0.5M	0.5M	0	0
		4M	0.5M	0.5M	0.5M	0.5M	0	0
		4.5M	0.5M	0.5M	0.5M	0.5M	0	0
		5M	0.5M	0.5M	0.5M	0.5M	0	0
		5.5M	0.5M	0.5M	0.5M	0.5M	0	0
		6M	0.5M	0.5M	0.5M	0.5M	0	0
		6.5M	0.5M	0.5M	0.5M	0.5M	0	0
		7M	0.5M	0.5M	0.5M	0.5M	0	0
		7.5M	0.5M	0.5M	0.5M	0.5M	0	0
		8M	0.5M	0.5M	0.5M	0.5M	0	0
		8.5M	0.5M	0.5M	0.5M	0.5M	0	0
		9M	0.5M	0.5M	0.5M	0.5M	0	0
		9.5M	0.5M	0.5M	0.5M	0.5M	0	0
		10M	0.5M	0.5M	0.5M	0.5M	0	0
		10.5M	0.5M	0.5M	0.5M	0.5M	0	0
		11M	0.5M	0.5M	0.5M	0.5M	0	0
		11.5M	0.5M	0.5M	0.5M	0.5M	0	0
		12M	0.5M	0.5M	0.5M	0.5M	0	0
		12.5M	0.5M	0.5M	0.5M	0.5M	0	0
		13M	0.5M	0.5M	0.5M	0.5M	0	0
		13.5M	0.5M	0.5M	0.5M	0.5M	0	0
		14M	0.5M	0.5M	0.5M	0.5M	0	0
		14.5M	0.5M	0.5M	0.5M	0.5M	0	0
		15M	0.5M	0.5M	0.5M	0.5M	0	0
		15.5M	0.5M	0.5M	0.5M	0.5M	0	0
		16M	0.5M	0.5M	0.5M	0.5M	0	0
		16.5M	0.5M	0.5M	0.5M	0.5M	0	0
		17M	0.5M	0.5M	0.5M	0.5M	0	0
		17.5M	0.5M	0.5M	0.5M	0.5M	0	0
		18M	0.5M	0.5M	0.5M	0.5M	0	0
		18.5M	0.5M	0.5M	0.5M	0.5M	0	0
		19M	0.5M	0.5M	0.5M	0.5M	0	0
		19.5M	0.5M	0.5M	0.5M	0.5M	0	0
		20M	0.5M	0.5M	0.5M	0.5M	0	0
		20.5M	0.5M	0.5M	0.5M	0.5M	0	0
		21M	0.5M	0.5M	0.5M	0.5M	0	0
		21.5M	0.5M	0.5M	0.5M	0.5M	0	0
		22M	0.5M	0.5M	0.5M	0.5M	0	0
		22.5M	0.5M	0.5M	0.5M	0.5M	0	0
		23M	0.5M	0.5M	0.5M	0.5M	0	0
		23.5M	0.5M	0.5M	0.5M	0.5M	0	0
		24M	0.5M	0.5M	0.5M	0.5M	0	0
		24.5M	0.5M	0.5M	0.5M	0.5M	0	0
		25M	0.5M	0.5M	0.5M	0.5M	0	0
		25.5M	0.5M	0.5M	0.5M	0.5M	0	0
		26M	0.5M	0.5M	0.5M	0.5M	0	0
		26.5M	0.5M	0.5M	0.5M	0.5M	0	0
		27M	0.5M	0.5M	0.5M	0.5M	0	0
		27.5M	0.5M	0.5M	0.5M	0.5M	0	0
		28M	0.5M	0.5M	0.5M	0.5M	0	0
		28.5M	0.5M	0.5M	0.5M	0.5M	0	0
		29M	0.5M	0.5M	0.5M	0.5M	0	0
		29.5M	0.5M	0.5M	0.5M	0.5M	0	0
		30M	0.5M	0.5M	0.5M	0.5M	0	0
		30.5M	0.5M	0.5M	0.5M	0.5M	0	0
		31M	0.5M	0.5M	0.5M	0.5M	0	0
		31.5M	0.5M	0.5M	0.5M	0.5M	0	0
		32M	0.5M	0.5M	0.5M	0.5M	0	0
		32.5M	0.5M	0.5M	0.5M	0.5M	0	0
		33M	0.5M	0.5M	0.5M	0.5M	0	0
		33.5M	0.5M	0.5M	0.5M	0.5M	0	0
		34M	0.5M	0.5M	0.5M	0.5M	0	0
		34.5M	0.5M	0.5M	0.5M	0.5M	0	0
		35M	0.5M	0.5M	0.5M	0.5M	0	0
		35.5M	0.5M	0.5M	0.5M	0.5M	0	0
		36M	0.5M	0.5M	0.5M	0.5M	0	0
		36.5M	0.5M	0.5M	0.5M	0.5M	0	0
		37M	0.5M	0.5M	0.5M	0.5M	0	0
		37.5M	0.5M	0.5M	0.5M	0.5M	0	0
		38M	0.5M	0.5M	0.5M	0.5M	0	0
		38.5M	0.5M	0.5M	0.5M	0.5M	0	0
		39M	0.5M	0.5M	0.5M	0.5M	0	0
		39.5M	0.5M	0.5M	0.5M	0.5M	0	0
		40M	0.5M	0.5M	0.5M	0.5M	0	0
		40.5M	0.5M	0.5M	0.5M	0.5M	0	0
		41M	0.5M	0.5M	0.5M	0.5M	0	0
		41.5M	0.5M	0.5M	0.5M	0.5M	0	0
		42M	0.5M	0.5M	0.5M	0.5M	0	0
		42.5M	0.5M	0.5M	0.5M	0.5M	0	0
		43M	0.5M	0.5M	0.5M	0.5M	0	0
		43.5M	0.5M	0.5M	0.5M	0.5M	0	0
		44M	0.5M	0.5M	0.5M	0.5M	0	0
		44.5M	0.5M	0.5M	0.5M	0.5M	0	0
		45M	0.5M	0.5M	0.5M	0.5M	0	0
		45.5M	0.5M	0.5M	0.5M	0.5M	0	0
		46M	0.5M	0.5M	0.5M	0.5M	0	0
		46.5M	0.5M	0.5M	0.5M	0.5M	0	0
		47M	0.5M	0.5M	0.5M	0.5M	0	0
		47.5M	0.5M	0.5M	0.5M	0.5M	0	0
		48M	0.5M	0.5M	0.5M	0.5M	0	0
		48.5M	0.5M	0.5M	0.5M	0.5M	0	0
		49M	0.5M	0.5M	0.5M	0.5M	0	0
		49.5M	0.5M	0.5M	0.5M	0.5M	0	0
		50M	0.5M	0.5M	0.5M	0.5M	0	0