DEPARTMENT OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
MINISTÈRE DES AFFAIRES INDIENNES ET DU NORD CANADIEN

OIL & MINERAL DIVISION
DIVISION DU PÉTROLE ET DES MINÉRAUX

WELL COMPLETION DATA
RENSEIGNEMENTS SUR LES FORAGES

Drilling Authority No. 575
N° de l'autorisation de forage
Date Issued Feb.3/72
Date de délivrance

To be submitted in duplicate within thirty days after the completion, rework, abandonment, recompletion or suspension of every well.
À présenter en double dans les trente jours suivant l'achèvement, le remaniement, l'abandon et le reconditionnement de chaque puits, ou après suspension.

Well Name & No — *Nom et n° du puits*	Permit No. — *N° de permis*	Lease No. — *N° de concession*
HB et al Willow A-39	4421	

(Permittee, License, Lessee) — *(Détenteur de permis ou de licence, du concessionnaire)*	Exploratory Licence No. — *N° de licence de sondage*
SOBC, CANADA CITIES SERVICE LTD.	1914, 1943
(Operator) — *(Exécutant)* Hudson's Bay Oil & Gas Company Limited	Exploratory Licence No. — *N° de licence de sondage* 1908

LOCATION — *EMPLACEMENT*

Unit — *Unité*	Section	Grid — *Étendue quadrillée*	Latitude	Longitude
A	39	62-50-122-45	62°48'05"	122°50'53"

Unique Well Identifier — *Code d'ordinateur*: 300A396250122450

Universal Well Location Reference — *Références universelles d'emplacement du puits*: Lat. 62.80139°N, Long.122.84806°W

	Date	Depth — *Profoneur*
Spudded *Début des travaux*	Feb.21/72	
Suspended *Suspension des travaux*	Apr.2/72	2710'KB
Resumed Operations *Reprise des travaux*	Jan.25/73	2710'KB
Finished Drilling *Forage terminé*	Feb. 7 /72	4000'KB
Deepened *Approfondissement*		
Complete (Gas/Oil) *Achèvement (Gaz/Pétrole)*		
Abandoned *Abandon*	Feb.11/73	4000'KB
Rig Released *Fin des travaux*	Feb.11/73	

Pool(s) *Gisement(s)*

Interval(s) Open to Production *Intervalle(s) de production*

Elevation: Gr. *Altitude du sol* 2050.0 ft. K.B. *du carré d'entraînement* 2061.9 ft.

Rig No. *N° de la tour de forage* 12 Drilling Contractor *Entrepreneur en forage* Commonwealth

Contractor's Business Licence No. *N° du permis de l'entrepreneur* 0997

CASING RECORD — *TUBAGE*

Casing Size (Inches) *Diamètre (en pouces)*	Grade *Qualité*	Weight *Poids*	Amount *Longeur*	Set at — *Fixation à*	Sacks of Cement and Additives *Sacs de ciment et d'additifs*
1. 13-3/8	H-40	48#	574.55	568	600 +2% $CaCl_2$
2.					
3.					
4.					
5.					
6.					

Geological Tops *Sommet des formations*	Elevation — *Profondeur* Depths *Sous le niveau du sol*	Sub-Sea *Sous le niveau de la mer*
L. Chin Carb.	1350	+712
Delorme	1520	+542
Mt. Kindle	1930	+132
L.Chin. Carb.	2810	-748
Mt. Kindle	3160	-1098

Core Record — *Carottes*

From — *de*	To — *à*	Rec. *Récupérées*	Rec. *Récup.*
	none		

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
MAY 1 1973
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BRANCH

Log Record — *Diagrammes*

Run *Série*	Type of Log *Genre de diagramme*	From — *De*	To — *À*
1	Continuous Dipmeter	560	2708
1	DILL	560	2696
2	DILL	2500	4000
1	CNFDC	560	2708
2	CNFDC	2500	4004
1	BHCGRSC	560	2708
2	BHCGRSC	2500	4004
1	SNP (Included in CNFDC)	560	2708
2	Continuous Dipmeter	2500	-560

CEMENTING RECORD (Plug, Squeeze, etc.) *CIMENTATION (Bouchon, sous pression, etc.)*			
Date	From – *de*	To – *à*	Remarks – *Remarques*
Feb.10/73	4000	3500	180sxs.+4% gel
Feb.10/73	3500	3000	180sxs. +4% gel
Feb.10/73	620	520	105sxs. +3% $CaCl_2$
			felt at 530'KB

PERFORATING RECORD (Bullet, Jet) *PERFORATION (à balles, à jet)*			
Date	From – *de*	To – *à*	Remarks – *Remarques*

SERVICING RECORD (Acidizing, Fracing, etc.) *ENTRETIEN (acidification, fracturation, etc.)*			
Date	From – *de*	To – *à*	Remarks – *Remarques*

DRILL STEM TESTS — *ESSAIS AUX TIGES*

No. – *N°*	Date	Formation	From – *de*	To – *à*	V.O. Mins. *Vanne ouverte (minutes)*	I.S.I. Mins. *Première obturation (minutes)*	F.S.I. Mins. *Obturation définitive (minutes)*	I.S.I.B.H.P. *Pression de fond à la 1re obturation*	F.S.I.B.H.P. *Pression de fond à l'obturation définitive*	I.F.B.H.P. *Pression defond au jaillissement*	F.F.B.H.P. *Pression de fond à l'écoulement définitif*	L.H.P. *Pression hydrostatique au début*	F.H.P. *Pression hydrostatique définitif*	Remarks – *Remarques*
1	Feb.9/73	Mt. Kindle	3180	3210	30	60	120	-	-	101	101	1515	1515	Partial misrun - lost packer seat. Recovered 150 feet mud.

Field Readings

ANALYSIS — *ANALYSE*

Lab. No. *N° de laboratoire*	Sample *Echantillon*	From – *de*	To – *à*	Source	Remarks – *Remarques*

PRESENT STATUS OF WELL *ETAT ACTUEL DU PUITS*

Oil *Pétrole*		(Interval) *(Intervalle)*
Gas *Gaz*		(Interval) *(Intervalle)*
Dry *Sec*	X	
Susp. *Travaux sus.*		

Company *Société* Hudson's Bay Oil & Gas Company Ltd.

Signed by *Signé par* G.A. Cawsey

Title *Titre* Division Petroleum Engineer

Date April 2, 1973

Forms to be prepared in duplicate and forwarded to the District Conservation Engineer.

Présenter les formules remplies à l'ingénieur en conservation du district.

CANADA

Drilling Authority No. 575

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
MAY 1 1973
YELLOWKNIFE, N.W.T.
NORTHERN ENVIRONMENTAL DEVELOPMENT BRANCH

Application to Abandon a Well ~~or Suspend Drilling~~

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to abandon, to suspend drilling:—

Name and number of well HB et al Willow A-39

Location: Unit C Section 39 Grid 62-50-122-45

Latitude 62°48'05" Longitude 122°50'53"

From Established Reference Marker

Universal Well Location Reference Lat. 62.80139N Long. 122.84806W

Permit No. P&NG #4421 ✓ Lease No.

SOBC, CANADA CITIES SERVICE LTD.
(Permittee, Licencee, Lessee)

Date of commencement of proposed program February 10, 1973

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at

Gas at

Water at

Total Depth 4000 feet KB Date of last operations

Present condition of well Abandoned

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Pulled
1. 13-3/8	48#	574.55	568	600 +2% $CaCl_2$	
2.					
3.					
4.					
5.					

PROPOSED ABANDONMENT PROGRAM

Plug No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
1A	4000-3500	Mt. Kindle	180+4% Gel	
1B	3500-3000	L. Chin. Carb.	180+4% Gel	
2	620- 520	casing shoe	105+3% $CaCl_2$	Felt at 530 feet

The following logs have been run DILL, SNP, BHCGRSC, CNFDC, CONTINUOUS DIPMETER

Other operations proposed

Operations to be carried out by Commonwealth Drlg. Contractor Licence No. C397

Address 535-7 Ave., S.W., Calgary, Alberta Address 320-7 Ave., S.W., Calgary

Responsible Agent in field N. Dease

Dated at Calgary, this 2nd Day of April 19 73

Signed by [signature] Company Hudson's Bay Oil & Gas Company Ltd.

Title Division Petroleum Engineer Operator's Exploratory Licence No. 1908

Note:—The District Conservation Engineer's office must be notified before work is commenced.

(For OIL AND MINERAL DIVISION use only)

APPROVAL

This application has been examined and proposed programme approved, subject to the following conditions:

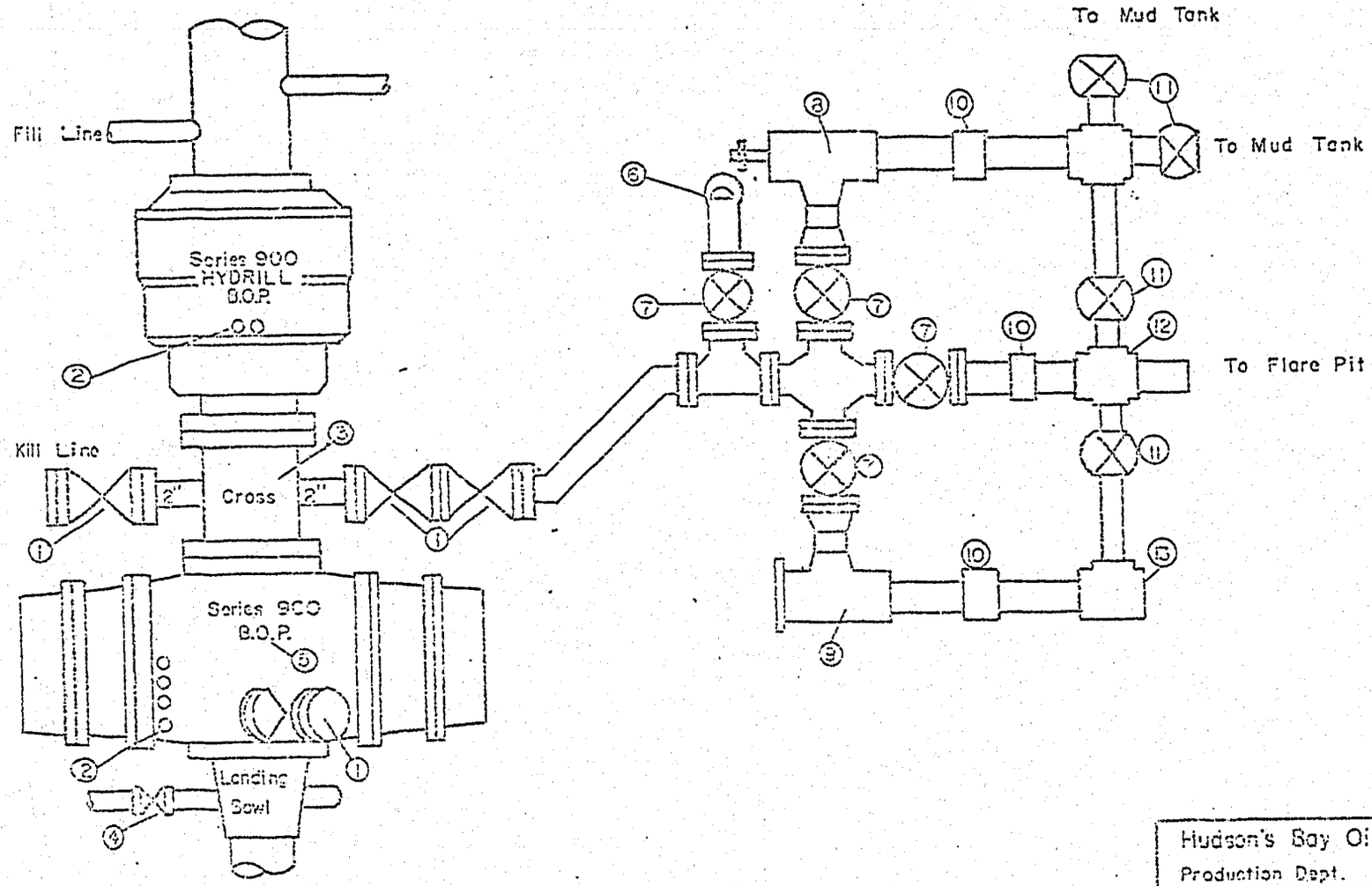
Dated May 4, 1973

[signature]
District Conservation Engineer
for K. L. Price

Forms to be submitted in triplicate to District Conservation Engineer, Department of Indian Affairs and Northern Development.

IAND 52-90-S (7-71)

Voir au verso



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
JAN 31 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BRANCH

Hudson's Bay Oil and Gas Company Limited
Production Dept. Edmonton District

BOP SYSTEM & BLOWDOWN MANIFOLD

HB et al WILLOW C-39
COMMONWEALTH DRILLING No.12

Scale: NTS	Drawn: M.R.	Drawing No:
Date: JAN. 27/72	Chkd:	

1. 3" valve Series 900 Flanged
2. Control lines are to be Steel construction with chicksen swing connections
3. Space saver spool
4. 2" 300 psi screwed steel valve
5. Double Gate
6. 3000 psi pressure gauge
7. 2" Flanged valves
8. Adjustable Choke
9. Positive Choke
10. Union
11. 2" screwed valves
12. 3" x 2" Reducing Cross
13. 2" Tee

File No.....

Drilling Authority No. 575

CANADA

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

Application to Alter Condition of a Well

Notice of Intention to Resume Operations to Recondition, Deepen, Recomplete or Reopen a Suspended Well
(Strike out words that are not applicable.)

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to:

Type of operation: Re open a suspended well

Name and number of well: HB ET AL WILLOW A-39

Location: Unit: A Section: 39 Grid: 62-50-122-45

Latitude: 62° 48' 05" Longitude: 122° 50' 53"

Unique Well Identifier: 3 00 A 3962 50122450

Universal Well Location Reference: Lat. 62.80139N Long. 122.84806

Permit No.: P&NG 4421 Lease No.:

Permittee, Licensee, Lessee: Standard Oil Company of British Columbia Lic. 1914 / Canada Cities Service Ltd. Lic. 1943

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at.....

Gas at.....

Water at.....

Total depth: 2710 feet KB Date of last operation: April 2, 1972

Present condition of well: Well suspended with cement plugs in the hole.
Plug #1 2710 to 2610 feet KB.
Plug #2 608 to 508 feet KB.

CASING RECORD

	Casing Size O.D. (Inches)	Weight	Amount	Set at—	Sacks of Cement and Additives	Amount Pulled
1.	13 3/8"	48	558	568	600 sacks + 2% CaCl 2	
2.						
3.						
4.						
5.						
6.						

O.K MLT

OPERATION PROPOSED
(If more space is required, attach additional sheet)

Program of operations – (Plugs, perforations, rework, etc.) Drill out plugs and continue drilling to 4000 feet.

Operations to be carried out by: Commonwealth Drilling (Western) Limited Contractor's Business Licence No.: Applied for by Commonwealth Drlg.

Address: 535 - 7th Avenue S.W., Calgary

Responsible agent in field: N. Dease Address: 320 - 7th Avenue S.W., Calgary

Dated at: Calgary, this: 3rd day of: January 19 73

Signed by: [signature] Company: Hudson's Bay Oil & Gas Company Ltd.

Title: Division Drilling Foreman Operator's Exploratory Licence No.: 1908

Note:—The Oil Conservation Engineer's office must be notified before work is commenced.

(For RESOURCE MANAGEMENT DIVISION use only)

APPROVAL

This application has been examined and program of operations approved, subject to the following conditions:

See attached list of conditions of approval.

Dated 9-JAN-73, 19 .....

R. L. Price
Oil Conservation Engineer

Forms to be submitted in triplicate to Oil Conservation Engineer, Department of Indian Affairs and Northern Development, Calgary, Alta.

IAND 52 90 (6) (9-69)

D.I.A.N.D. – CONDITIONS OF APPROVAL FOR DRILLING AUTHORITY No. 515

WELL HB ET AL WILLOW A-39 (62-50-122-45)

1. Copies of this Drilling Authority Form and Daily Drilling Report Preparation Requirements Card, shall be posted in full view at the drilling rig, in both the doghouse and drilling foreman's office between spud and rig release dates.

2. The company will submit to this office, on Tuesday morning of each week, a day-by-day progress report summary, on the well, for the past week. (See daily drilling report preparation requirements card for pertinent details.) Phoned-in report format shall be in this order - well name, location, present depth, present activity in progress and past day's pertinent details.

3. All shows (small or large) of oil & gas are to be reported immediately.

4. When a fatal accident occurs the District Conservation Engineer is to be notified immediately and drilling ahead must cease. Permission to resume operations must be granted by the District Conservation Engineer after a fatality.

5. All waste materials on and around the wellsite area, shall be disposed of in a manner that will prevent pollution to adjacent areas. Burnables shall be burned and non-burnables shall be buried with adequate cover or hauled away.

6. Prior to moving to drilling site, a Land Use Permit, for access and a Water Use Permit must be obtained from the Water, Forests and Land Division, Yellowknife. We further draw your attention to Sections 95 and 96 of the Canada Oil & Gas Land Regulations.

7. Forward to this office two (2) field prints of all well logs (except Velocity logs) including copies of core analysis and fluid analysis as soon as they are available.

8. Any changes to, or additions to the approved Drilling Authority must have prior approval of the District Conservation Engineer. For example: total depth, casing depths/specs., location coordinates, well name, datum elevations, operator, contractor.

9. Surface casing to be set 50 feet (min.) into a consolidated formation at the approved depth.

10. 3000# W.P. (Ser. 900) B.O.P.'s are required to 12,000 ft. (max.)
5000# W.P. (Ser.1500) B.O.P.'s are required below 12,000 ft.

11. You are required to notify the Yellowknife Office twenty-four (24) hours before spudding.

9-JAN-73

GEOLOGICAL PROGNOSIS

WELL NAME: HB et al Willow A-39

Grd. Elev. (est.) ~~1900'~~ 2050'

LOCATION: A-39; 62°50', 122°45'

K.B. Elev. 2061.9'

GEOLOGICAL ESTIMATES:

	Elev.	Int.	Depth
Ronning Group		1650	1600
Cambrian		50	3250
T.D. in Cambrian			~~3300~~ 4000'

SAMPLES:

1. Catch 10 foot samples in vials from surface casing to T.D. for HBOG, Chevron and Cities Service.
2. Catch samples as required by Dept. of Indian Affairs & Northern Development.

MUD:

Mud adequate for obtaining good cuttings should be in the hole from surface casing to T.D.

DRILLING TIME:

At discretion of wellsite geologist.

LOGS:

Reproduce 12 copies of field logs and 6 copies of Geol. Desc. form only at wellsite.

1. Dual Induction Laterolog, T.D. to surface casing with 5" detail over same interval.
2. Gamma Ray-Borehole Compensated Sonic Log, T.D. to surface casing with 5" detail over same interval.
3. Compensated Formation Density, T.D. to surface casing with 5" detail over same interval.
4. Continuous Dipmeter, Four Arm Digital; intervals to be determined later.

CORING AND TESTING:

1. In any porous zone, test first 20' of porosity and, if productive, core and test in 60' intervals until zone is pentrated or water is encountered.

FLUID SAMPLES:

Representative fluid samples of all DST's from top, middle and bottom of the fluid column are required for analysis. Provide a second set for the logging company for Rw determinations and have these values recorded on the field logs.

DAILY REPORTS:

George Dann 267-2430 (Bus.) 249-8420 (Res.) or Bill Oke 267-2432 (Bus.) 249-2917 (Res.)

District Geologist

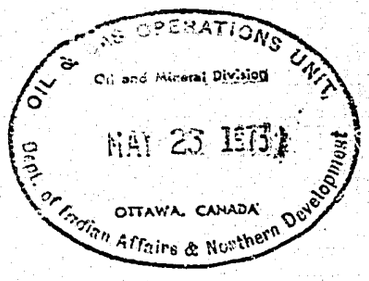
Manager, Geological Section

DISTRIBUTION:

Exploration	12
District	9
Production HQ	3

038-11-04-034

HUDSON'S BAY OIL AND GAS COMPANY LIMITED



WELL HISTORY REPORT #2
HB et al WILLOW A-39

SIGNED: _____

DATE: _____

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SUMMARY OF WELL DATA

Well Name:	HB et al Willow A-39
Leasee:	Standard Oil of British Columbia Canada Cities Service Ltd.
Operator:	Hudson's Bay Oil & Gas Co. Ltd.
Location:	A-39-62-50-122-45 Lat. 62°48'05" Long. 122°50'53" Universal Well Location References: Lat. 62.80139N, Long. 122.84806W Unique Well Identifier: 300A396250 122450
Co-ordinates:	Lat. 62°48'05" Long. 122°50'53"
Permit:	#4421
Drilling Contractor:	Commonwealth Drilling (Western) Ltd., Rotary Rig #12
Drilling Authorization:	No. 575, issued Feb. 3/72
Classification:	Exploratory
Elevations:	Ground: 2050.0 feet KB: 2061.9 feet
Spudded:	February 21, 1972
Suspended Drilling:	April 2, 1972
Resumed Drilling:	January 25, 1973
Completed Drilling:	February 7, 1973
Total Depth:	3952 feet KB
Plug Back Depth:	Surface
Well Status:	Abandoned

Rig Released:	February 11, 1973
Hole Sizes:	17½" to 568 feet KB 8-3/4" to 4000 feet KB
Casing:	13-3/8" OD, 48# H-40 set at 568 feet KB

GEOLOGICAL SUMMARY

Tops:

Marker	Log Depth ft. KB	Log Depth Elev.	Sample Depth ft. KB	Sample Depth Elev.
L. Chin. Carbonates	1345	717	1350	712
Delorme	1520	542	1520	542
Mt. Kindle	1928	134	1930	132
L. Chin. Carbonates	2840	-778	2810	-748
Mt. Kindle	3130	-1068	3160	-1098

Cored Interval: No cores cut.

Sample Description: See next page from 2710' - 4000'.

NOTE: Samples Lagged 50'/Minute

2720 VERY POOR SAMPLE: very small returns of which a large amount were cavings.

2730 DOLOMITE: grey to light brown, micro to very fine crystalline, slightly calcareous, in part light green and slightly silty; slightly stylolitic with traces of poor pinpoint to vuggy porosity.

2740 DOLOMITE: grey to light brown, slightly calcareous, micro to very fine crystalline, traces of stylotites, a few occurrances of white calcite and clear quartz crystallization; fine to medium crystalline.

2750 DOLOMITE: calcareous, grey to light brown, micro to very fine crystalline, traces of poor pinpoint to vuggy porosity whereas pyrite occupies some former vugs.
Dolomite and quartz stringers and crystal buildups are present. Some dolomite appears to be fractured. POSSIBLY ASSOCIATED WITH A FAULT (D. WYLIE).

2760 DOLOMITE: brecciated and fractured as above, slight pyritization and stylolitic, none porous.

2770 DOLOMITE: grey to light brown, calcareous, micro to very fine crystalline, traces of stylolites, minor recrystallization in stringers as above.

2780 DOLOMITE: grey to light brown, micro to very fine crystallinity, slightly stylolitic and bitumen stained, minor large dolomite crystals and stringers.
SUCROSIC DOLOMITE: minor, light brown to grey, very fine crystalline.

2790 DOLOMITE: as above with a trace of pyritization and poor vuggy porosity.

2800 DOLOMITE: as above, slightly calcareous and traces of vuggy porosity.

2810 DOLOMITE: as above.

2820 DOLOMITE: dark grey to black, slightly calcareous, micro to very fine crystalline, slightly fractured with anhedral to subhedral, white and clear dolomite stringers, traces of pyrite recrystallization, traces of bitumen.
DOLOMITE: moderate amount, light brown to grey, microcrystalline.

2830 DOLOMITE: both varieties as above.

2840 POOR SAMPLE: small returns.
DOLOMITE: dark grey to black variety as above, slightly more brecciated.
DOLOMITIC BRECCIA: grey to light brown, very fine to fine pelletoidal dolomite, grey, in a calcareous crypto to microcrystalline matrix, a trace of bitumen stain. The dolomite is detrital in nature.

2850 DOLOMITIC BRECCIA: grey to light brown, very fine to medium grain sized, dolomite pellets in a crypto to microcrystalline calcareous matrix, a trace of pyritization and some bitumen staining, pellets vary from angular to subrounded and are detrital.

2860 DOLOMITIC BRECCIA: as above, less bitumen; minor amount of dark grey dolomite as described in 2820.

2870 DOLOMITIC BRECCIA: as above.

2880 DOLOMITIC BRECCIA: as above, traces of pyritization.
DOLOMITE: minor amount, grey to light brown, calcareous, cryptocrystalline and slightly stylolitic.

2890 DOLOMITIC BRECCIA AND DOLOMITE: as above, with a greater amount of dolomite present.

2900 DOLOMITIC BRECCIA AND DOLOMITE: as above, with dolomite and quartz crystal pieces and stringers in the breccia, traces of bitumen staining.

2910 DOLOMITIC BRECCIA AND DOLOMITE: as above, only a few crystal pieces.

2920 DOLOMITIC BRECCIA AND DOLOMITE: as in 2900 with a trace of poor pinpoint to vuggy porosity, slightly stylolitic or bitumen stained.

2930 DOLOMITIC BRECCIA AND DOLOMITE: as above, a trace of pyritization and gypsum, a trace of poor pinpoint to vuggy porosity. Samples appear to be fractured rather than predominantly detrital in nature.

2940 DOLOMITIC BRECCIA AND DOLOMITE: as above.
DOLOMITE: dark grey to black, microcrystalline, micro fractures with white microcrystalline dolomite stringers.

2950 SAME AS ABOVE

2960	SAME AS ABOVE: less fractured and brecciated.
2970	DOLOMITE: moderately calcareous, grey to brown cryptocrystalline, slightly stylolitic and traces of lamination, several calcite stringers and crystal pieces.
2980	DOLOMITE: calcareous, grey to light brown, crypto-crystalline, traces of dolomite stringers pyritization and bitumen.
2990	DOLOMITE: as above varying to microcrystalline with a slight trace of poor pinpoint to vuggy porosity.
3000	DOLOMITE: as above, several gypsum, dolomite and quartz euhedral crystals present.
3010	DOLOMITE: as above.
3020	DOLOMITE: as above, predominantly cryptocrystalline.
3030	DOLOMITE: as above, with no visible porosity.
3040	DOLOMITE: as above. DOLOMITE: pelletoidal, grey to light brown, micro-granular dolomitic pellets in a calcareous dolomitic cryptocrystalline matrix.
3050	DOLOMITE: as above with only a minor amount of silty dolomite, bitumen stains.
3060	DOLOMITE: as above with only traces of silty dolomite, several gypsum pieces.
3070	DOLOMITE: grey to light brown, crypto to micro-crystalline, calcareous, a trace of pyrite, bitumen, and gypsum pieces.
3080	DOLOMITE: as above predominantly cryptocrystalline.
3090	DOLOMITE: as above.
3100	DOLOMITE: as above.
3110	DOLOMITE: as above.
3120	DOLOMITE: as above.
3130	DOLOMITE: as above.

3140 DOLOMITE: predominantly as above with small amount of sandy quartzose dolomite.
SANDY DOLOMITE: grey, very fine grained clear quartz grains in a cryptocrystalline calcareous dolomite matrix.

3150 DOLOMITE AND SANDY DOLOMITE: as above.

3160 DOLOMITE AND SANDY DOLOMITE: as above though only a trace of the sandy dolomite was found, traces of bitumen staining and pyritization.

3170 DOLOMITE: calcareous, grey to brown, crypto to microcrystalline, traces of calcite very fine to coarse crystals.

3180 DOLOMITE: as above with calcite to dolomite crystalline stringers, crypto to coarse crystalline, anhedral to subhedral, a trace of pyritization and bitumen staining.

3190 DOLOMITE: as above, no pyritization, in part calcareous dolomite, very fine crystalline brown, sucrosic, with a slight trace of poor intercrystalline porosity.

3200 DOLOMITE: as above, bitumen stained and a trace of poor intercrystalline to vuggy porosity.

3210 DOLOMITE: as above.

3220 DOLOMITE: as above.

3230 DOLOMITE: as above, predominantly very fine crystalline, with a trace of pyritization and bitumen, and traces of poor to fair intercrystalline to vuggy porosity.

3240 DOLOMITE: as above.

3250 DOLOMITE: as above, with a slight trace of coarse crystalline, euhedral, clear quartz, a slight trace of grey, anhedral chert.

3260 DOLOMITE: as above, no quartz crystals.

3270 DOLOMITE: as above.

3280 DOLOMITE: calcareous, grey to brown, crypto to microcrystalline, traces of anhedral crystalline white to clear stringers, minor very fine crystalline dolomite as above, probably cavings.

[illegible] DOLOMITE: as above, traces of pyritization.

[illegible] DOLOMITE: moderately calcareous, grey to brown, crypto to microcrystalline, slightly bitumen stained, a few calcite and dolomite micro to coarse crystalline stringers.

3310 POOR SAMPLE: small return.
DOLOMITE: as above.

3320 POOR SAMPLE: small return.
DOLOMITE: as above with a slight trace of pyritization.

3330 DOLOMITE: as above, no pyritization.

3340 DOLOMITE: as above, predominantly cryptocrystalline.

3350 DOLOMITE: grey to brown, cryptocrystalline slightly stylolitic and with chert nodules, bitumen stained.
CHERT: chert nodules, white to light brown, cryptocrystalline, with fossil ghosts (spicules and/or brachiopods?).

3360 DOLOMITE AND CHERT: as above.

3370 DOLOMITE AND CHERT: as above, though predominantly crypto to microcrystalline grey brown, slightly calcareous dolomite.

3380 DOLOMITE AND CHERT: as above, greater abundance of chert fragments.

3390 DOLOMITE AND CHERT: as above.

3400 DOLOMITE AND CHERT: as above, traces of gypsum crystals.

3410 DOLOMITE AND CHERT: as above.

3420 DOLOMITE: grey to brown, slightly calcareous, crypto to very fine crystalline, traces of stylolites, clusters of quartz crystals fine to coarse crystalline, clear, prismatic, euhedral, a trace of poor intercrystalline to huggy porosity, traces of gypsum and dolomite crystals are also present.

3430 DOLOMITE: as above, traces of pyritization and stylolites in the dolomite, less porosity evident.

3440	DOLOMITE: slightly calcareous, grey to brown crypto to microcrystalline, slightly stylolitic, a trace of poor vuggy porosity.
3450	DOLOMITE: as above, varying to very fine crystalline, bitumen staining, less porosity evident.
3460	DOLOMITE: dark grey to brown, slightly calcareous, crypto to microcrystalline, a trace of pyrite, minor dolomite as above.
3470	DOLOMITE: as above.
3480	DOLOMITE: as above.
3490	DOLOMITE: as above.
3500	DOLOMITE: as above varying to very fine crystalline.
3510	DOLOMITE: slightly calcareous, dark grey to dark brown, crypto to very fine crystalline.
3520	DOLOMITE: as above, with traces of white calcite and dolomite anhedral stringers in the finer crystalline variety, interbeds of brown calcareous dolomite.
3530	DOLOMITE: as above with a trace of bitumen staining predominantly crypto to microcrystalline.
3540	DOLOMITE: as above.
3550	DOLOMITE: as above.
3560	DOLOMITE: as above.
3570	DOLOMITE: as above.
3580	DOLOMITE: as above predominantly cryptocrystalline.
3590	DOLOMITE: as above.
3600	DOLOMITE: as above, slightly bitumen stained.
3610	DOLOMITE: as above.

3800 DOLOMITE: slightly calcareous, dark grey to brown, crypto to very fine crystalline, with traces of bitumen, a few white dolomite subhedral to euhedral crystal pieces.

3810 DOLOMITE: slightly calcareous, light grey to light brown, micro to very fine crystalline, bitumen stained, some coarse crystalline dolomite as above, a trace of poor pinpoint to vuggy porosity.

3820 DOLOMITE: as above.

3830 DOLOMITE: as above, crystal pieces more numerous although only a slight trace of poor pinpoint to vuggy porosity.

3840 DOLOMITE: as above.

3850 DOLOMITE: as above.

3860 DOLOMITE: as above with a trace of poor pinpoint to vuggy porosity.

3870 ACTUALLY APPROXIMATELY 3865. LOST CIRCULATION OCCURRED AT 3875 AND THE 70 SAMPLE RECEIVED ONLY 1/2 LAG TIME.
CIRCULATION WAS RESTORED AFTER PLUGGING FRACTURE AT 832' WITH INNER-TUBES.

3880 DOLOMITE: as sample 3860 although there is no apparent porosity.

3890 DOLOMITE: as above.

3900 DOLOMITE: as above with a fewer amount of dolomite crystals.

3910 DOLOMITE: as above.

3920 DOLOMITE: dark grey to brown, slightly calcareous, crypto to micro crystalline a trace of dolomite stringers and crystal cavings.

3930 DOLOMITE: as above, predominantly cryptocrystalline a trace of dolomite stringers.

3940 DOLOMITE: as above with slight bitumen stain.

3950 DOLOMITE: as above.

3960	DOLOMITE: as above and slightly brecciated by micro fragments.
3970	DOLOMITE: as above.
3980	DOLOMITIC BRECCIA: as above, dark grey crypto-crystalline angular to subrounded clasts, fine to very coarse grain sized in a crypto to microcrystalline calcareous dolomite matrix.
3990	DOLOMITIC BRECCIA: as above.
4000	DOLOMITIC BRECCIA: as above.

COMPLETED DRILLING TUESDAY FEBRUARY 6, 1973.

ENGINEERING SUMMARY

Drill Stem Tests:

DST #:	One
Date:	February 9, 1973
Formation:	Mt. Kindle
Interval:	3180-3210'
IF Time:	6
ISI time:	60
FF Time:	30
FSI Time:	120
IHP:	1515
ISIP:	
IFP:	101
FFP:	101
FSIP:	927
FHP:	1515
BHT:	N/A

Remarks: Partial misrun - lost packer seat.
Recovered 150 feet drilling mud.

Bit Record: (Continued)

Number	Serial No.	Type	Size	Hours	Interval	Footage
3RR	33433	XDV	8-3/4	drill out cement plugs		
7	49043	X55R	8-3/4	116-1/4	2710-3496	786
8		X55R	8-3/4	73-3/4	3496-4000	504

Mud Report: (Continued)

Type	Interval	Ave.Wt.	Ave.Visc.	WL	PH	FC
gel-water	2710-4000	8.6	50	16	10.0	2/32

Volume of additives:

gel	-	40,400 lb.
caustic	-	500 lb.
soda ash	-	150 lb.
sawdust	-	290 sacks
fibre	-	18 sacks
inner tubes	-	20

Deviation Record: (Continued)

Depth	Degrees
2870	3/4
3000	3/4
3249	1-1/4
3342	1-1/2
3343	1
4000	1-1/2

Abandonment Plugs:

Plug No.	Interval	Cement	Felt @
1A	4000-3500	180 sxs. +4% gel	
1B	3500-3000	180 sxs. +4% gel	
2	620- 520	105 sxs. +3% $CaCl_2$	530'

Lost Circulation Zones: (Continued)

875 feet KB
Lost 225 bbls. mud. Mixed and pumped lost circulation material.

3173-3230 feet KB
Lost 20 bbls. mud. Mixed and pumped lost circulation material.

3870 feet KB
Lost 175 bbls. mud. Mixed and pumped lost circulation material.

Report of Blowouts: None

LOGS

Date	Run No.	Interval	Type	Scale
Feb. 7/73	2	2500-4000	Cont.Dip.	2"
Feb. 7/73	2	2500-4000	DILL	2" & 5"
Feb. 7/73	2	2500-4000	BHCGRSC	2" & 5"
Feb. 7/73	2	2500-4000	CNFDC	5"

— All logging by Schlumberger.

ANALYSIS

None

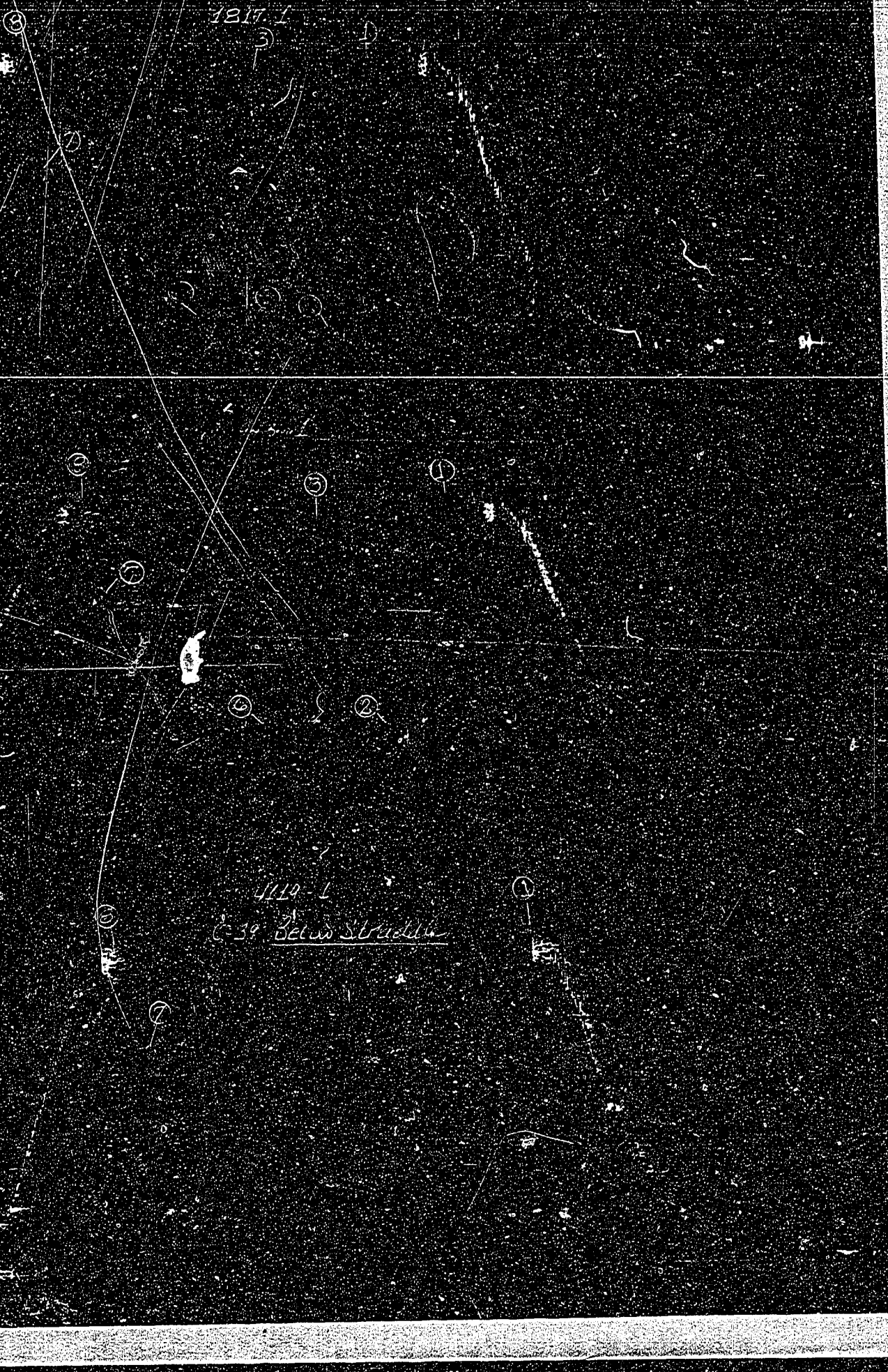
COMPLETION SUMMARY

Abandonment Plugs:

Plug #	Interval	Cement	Felt @
1A	4000-3500	180 sxs. +4% gel	
1B	3500-3000	180 sxs. +4% gel	
2	620- 520	105 sxs. +3% $CaCl_2$	530'

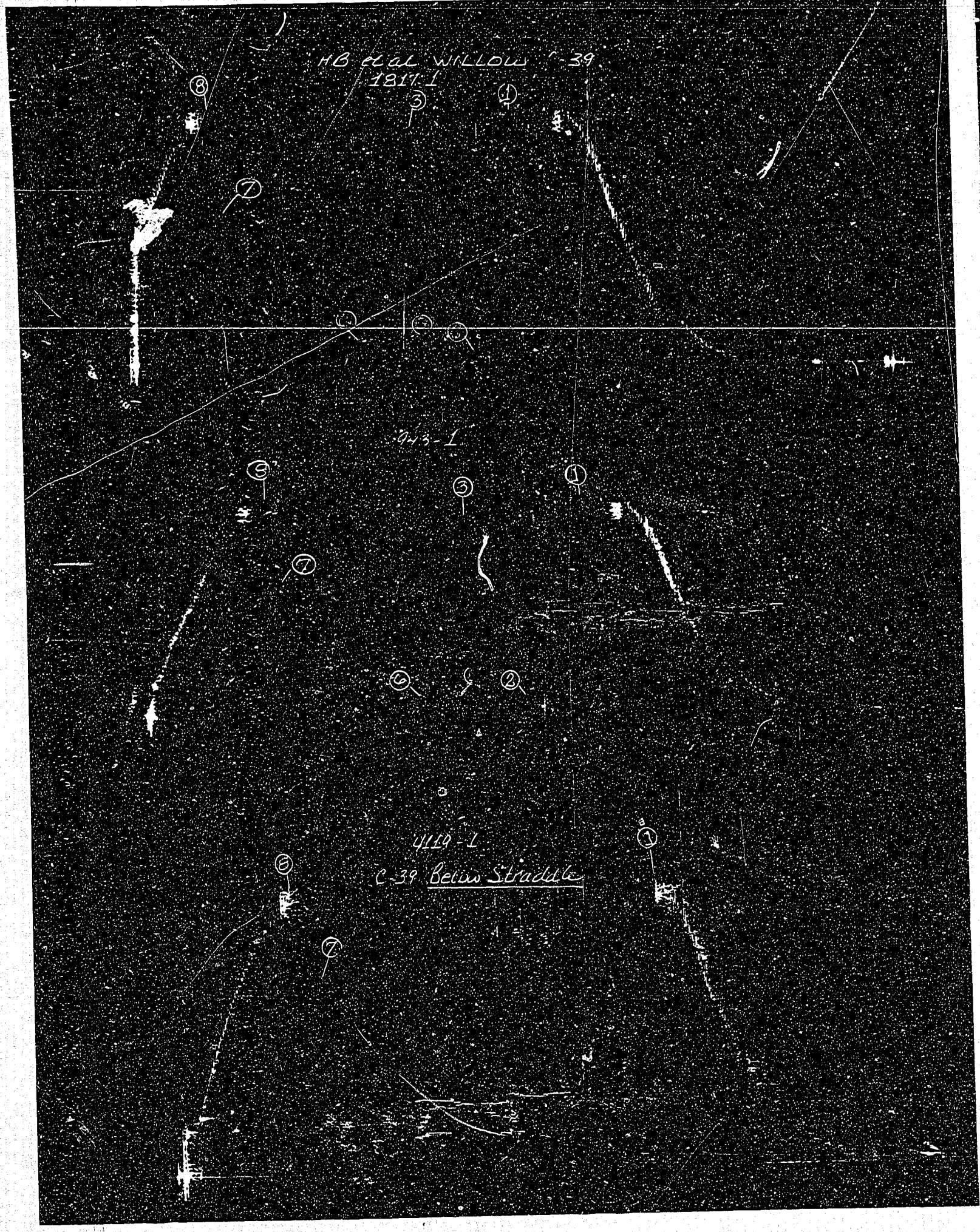
HB et al WILLOW A-39 D.A. 575

HG et al Willow A-39
1817 L



4119-L
A-39 Below Straddle

HB et al WILLOW A-39 D.A. 575

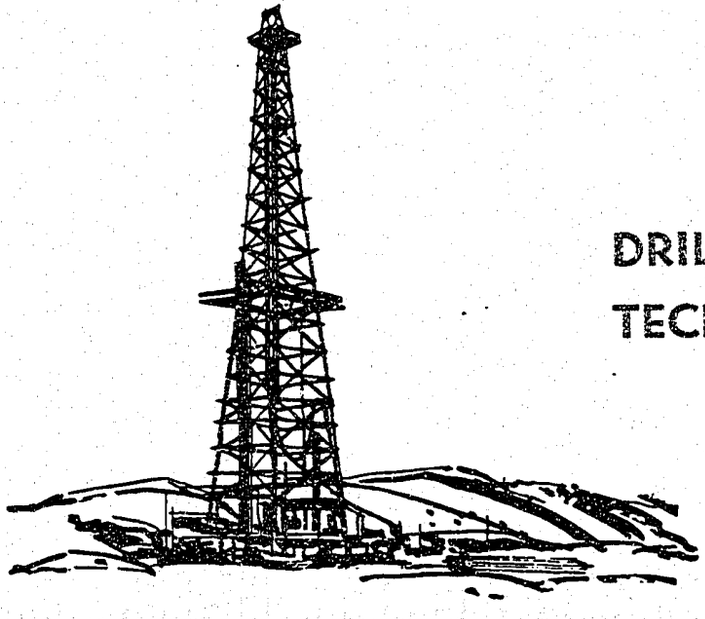


LYNES

BRIGHT NAME IN THE OIL PATCH

Inflatable and Conventional Packer Tools

TIGHT HOLE



DRILL STEM TEST
TECHNICAL SERVICE REPORT

NOMENCLATURE (Definition of Symbols)

Q	=	average production rate during test, bbls./day
Q_g	=	measured gas production rate during test, MCF/day
k	=	permeability, md
h	=	net pay thickness, ft. (when unknown, test interval is chosen)
μ	=	fluid viscosity, centipoise
Z	=	compressibility factor
T_r	=	reservoir temperature, ° Rankine
m	=	slope of final SIP buildup plot, psig/cycle (psig²/cycle for gas)
b	=	approximate radius of investigation, feet
r_w	=	wellbore radius, feet
t_o	=	total flowing time, minutes
P_o	=	Extrapolated maximum reservoir pressure, psig
P_f	=	final flowing pressure, psig
P.I.	=	productivity index, bbls./day/psi
$P.I._t$	=	theoretical productivity index with damage removed, bbl./day/psi
D.R.	=	damage ratio
E.D.R.	=	estimated damage ratio
AOF	=	absolute open flow potential, MCF/D
AOF_t	=	theoretical absolute open flow if damage were removed
Z	=	subsea depth
W	=	water gradient based on salinity
H_w	=	potentiometric surface

INTERPRETATION CALCULATIONS (OIL/WATER)

AVERAGE PRODUCTION RATE DURING TEST

Q = 1440 (drill collar capacity × recovery + drill pipe capac. × recovery) / initial flow time + final flow time

= 1440 [( ) ( ) + ( ) ( )] / [( ) + ( )]

= 1440 (.0145 or .0073) ( ) / ( )

= ..... bbls./day

Mud Expansion = —..... ft. (Drill Collar Conversion Is Considered)

FLUID PROPERTIES Estimated Bottom Hole Temperature °

API Gravity @ 60° F. ..... ° Specific Gravity @ 60° F. ..... Est. Viscosity ..... cp

TRANSMISSIBILITY

$\frac{kh}{\mu} = \frac{162.6Q}{m} = 162.6 \frac{(\quad)}{(\quad)} =$ ..... md.-ft/cp

IN SITU CAPACITY

kh = ( ) ( ) = ... md.-ft.

AVERAGE EFFECTIVE PERMEABILITY Estimated Pay Thickness Ft. / Actual Pay Thickness Ft.

$k = \frac{(\quad)}{(\quad)} =$ ..... md.

PRODUCTIVITY INDEX

$PI = \frac{Q}{P_o - P_f} = \frac{(\quad)}{(\quad) - (\quad)} =$ ..... bbl./day-psi

DAMAGE RATIO

$D.R. = \frac{0.183(P_o - P_f)}{m} = 0.183 \frac{[(\quad) - (\quad)]}{(\quad)} =$ .....

PRODUCTIVITY INDEX WITH DAMAGE REMOVED

$P.I._t = P.I. \times D.R. = (\quad)(\quad) =$ ..... bbl./day-psi

APPROXIMATE RADIUS OF INVESTIGATION

$b = \sqrt{kt_o} = \sqrt{(\quad)(\quad)} =$ ..... ft.

Drawdown Factor = $\frac{I.S.I.P. - F.S.I.P.}{I.S.I.P.} \times 100 = \frac{(\quad) - (\quad)}{(\quad)} \times 100 =$ ..... % (4% to 5% is considered serious or substantial)

Potentiometric Surface = $H_w = Z + \frac{P_o}{w}$ $H_w =$ ..... $+ \frac{(\quad)}{(\quad)} =$ ..... ± ..... ft.

INTERPRETATION CALCULATIONS (GAS)

$R(T_r) =$ ..... °

ESTIMATED GAS PROPERTIES Estimated Bottom Hole Temperature °

Gravity @ 60° F ..... Viscosity (Res.) ..... cp. Compressibility Factor (Z) .....

TRANSMISSIBILITY Measured D.S.T. Gas Rate = ... mcf/d.

$\frac{kh}{\mu} = \frac{1637 Q_g Z T_r}{m}$ $\frac{1637 (\quad)(\quad)(\quad)}{(\quad)} =$ ..... md.-ft. / cp.

IN SITU CAPACITY

kh = ( ) ( ) = ... md.-ft.

AVERAGE EFFECTIVE PERMEABILITY Estimated Pay Thickness Ft. / Actual Pay Thickness Ft.

$k = \frac{(\quad)}{(\quad)} =$ ..... md.

APPROXIMATE RADIUS OF INVESTIGATION

$b = 0.02\sqrt{kt_oP_o} = 0.02\sqrt{(\quad)(\quad)(\quad)(\quad)} =$ ..... ft.

ACTUAL CAPACITY

$kh = \frac{3270 Q_g \mu Z T_r \log(0.472\frac{b}{r_w})}{P_o^2 - P_f^2} = 3270 \frac{(\quad)(\quad)(\quad)(\quad)(\quad)}{(\quad) - (\quad)} =$ ..... md.-ft.

DAMAGE RATIO $E.D.R. = \frac{(P_o^2 - P_f^2)}{m(\log T_r + 2.65)}$

$D.R. = \frac{\text{In Situ Capacity}}{\text{Actual Capacity}} = \frac{(\quad)}{(\quad)} =$ ..... E.D.R. = ...

ESTIMATED RANGE OF AOF POTENTIAL

Max. AOF = $\frac{Q_g P_o^2}{P_o^2 - P_f^2} = \frac{(\quad)(\quad)}{[(\quad) - (\quad)]} = \frac{(\quad)}{(\quad)} =$ ..... MCF/D

Min. AOF = $\frac{Q_g P_o}{\sqrt{P_o^2 - P_f^2}} = \frac{(\quad)(\quad)}{\sqrt{[(\quad) - (\quad)]}} = \frac{(\quad)}{(\quad)} =$ ..... MCF/D

ESTIMATED RANGE OF AOF POTENTIAL, DAMAGE REMOVED

Max. AOF_t = (Max. AOF) (D.R.) = ( ) ( ) = ... MCF/D

Min. AOF_t = (Min. AOF) (D.R.) = ( ) ( ) = ... MCF/D

Drawdown Factor = $\frac{ISIP - FSIP}{ISIP} \times 100 = \frac{(\quad) - (\quad)}{(\quad)} \times 100 =$ ..... % (4% to 5% is considered serious or substantial)

Potentiometric Surface = $H_w = Z + \frac{P_o}{W}$ $H_w =$ ..... $+ \frac{(\quad)}{(\quad)} =$ ..... ± ..... ft.

LYNES UNITED SERVICES LTD.

WELL NAME - HB ET AL WILLOW

LOCATION - C-39

DST NUMBER - 1

INTERVAL TESTED - 3180 TO 3210

RECORDER NO. - 1817

DEPTH - 3198

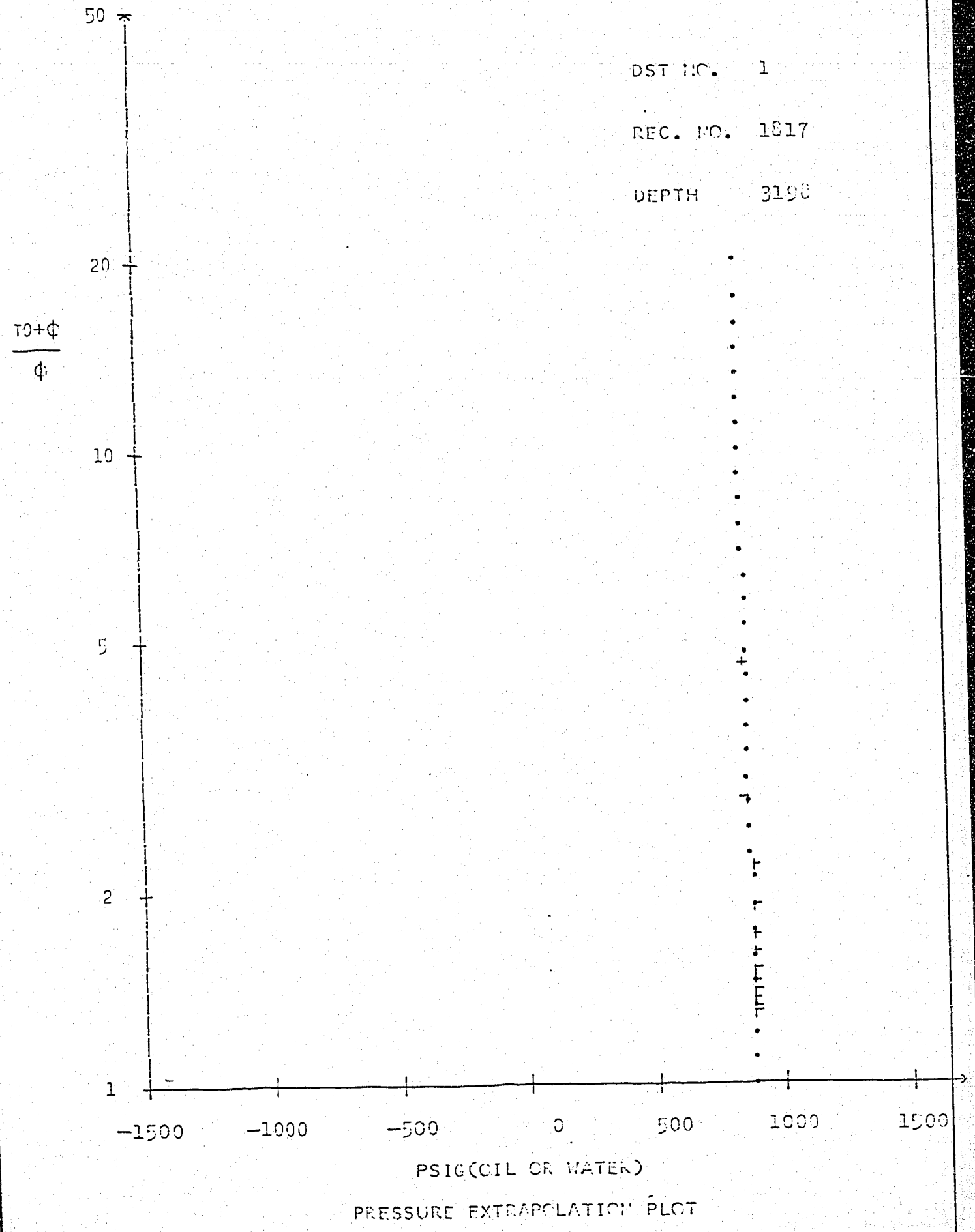
FINAL SHUT IN PRESSURE

TIME(MIN) Φ	T + Φ / Φ	PSIG
0	0.0000	97
10	4.6000	853
20	2.8000	877
30	2.2000	876
40	1.9000	879
50	1.7200	880
60	1.6000	880
70	1.5143	880
80	1.4500	881
90	1.4000	882
100	1.3600	882
110	1.3273	882
120	1.3000	882

EQU. FITTED LINE IS LOG((TO+Φ)/Φ)= -0.02967 PSIG + 26.28357

EXTRAPOLATION OF FINAL SHUT-IN = 885.84 M= 33.70

LYNES UNITED SERVICES LTD.



PRESSURE EXTRAPOLATION PLOT

LYNES UNITED SERVICES LTD.

TEST DATA				GENERAL INFORMATION	
Test No.	1	Lynes Test			
Formation		T.D.	4006 Ft.	Company	Hudsons Bay Oil & Gas
Interval Tested	3180 Ft. to	3210	Ft.	Address	
Interval Tested	30 Ft.	Net Pay Tested	Ft.		
Type of Test	Straddle Dual By Pass				
Cushion		Amount	Ft.	Well Name	HB et al Willow
Started in Hole at	4:45 Hrs.	Tool Open at	9:14 Hrs.	Well Number	C-39
Pre-Flow	6 Mins.	Initial Shut-in	60 Mins.	K.B. Elevation	2062 Sub-Sea Elevation
2nd Flow	Mins.	Second Shut-in	Mins.	Area	A39 Province NWT
Final Flow	30 Mins.	Final Shut-in	120 Mins.	Company Rep.	B. Walkey
Remarks:				Tester	E. Habekost
				Contractor	Commonwealth Rig No. 12
Blow:	Small air blow - dead in 5 min of preflow. Lost packer seat on initial shut-in for 15 seconds. Lost 20 feet of mud when pulling slips			Ticket No.	6353 Date Feb 8/73
				Service Reports To:	15 - above address

GAS FLOW MEASUREMENTS

Measured with

Time	Surface Choke	Reading Inches	Cubic Feet/Day

MUD AND HOLE DATA

Mud Type	Gel
Weight 8.8 Viscosity	67 Water Loss 20
Filter Cake	2/32" Bottom Hole Temperature
Drill Pipe Size	4" FH Weight
Drill Collars	18 I.D. Feet Run 520
Main Hole or Casing Size	8 3/4"
Rathole or Liner Size	No. of Feet
Bottom Hole Choke Size	
Surface Choke Size	3/4"
Packer Rubber Size	7 3/4"

REMARKS

Packers leaked slightly during the initial shut-in, then held throughout the remainder of test. Initial shut-in pressures are false. Shut-in pressures suggest low permeability within the interval tested.

RECOVERY

TOTAL FLUID RECOVERED 130 Ft. Consisting of:

130 Ft. of drilling mud

Ft. of

Ft. of

Ft. of

Test was/was not Reverse Circulated

Oil Recovery A.P.I. Water Specific Gravity

Salinity

PRESSURE READINGS

	Inside ___ Outside X	Inside ___ Outside X	Inside ___ Outside X	Inside ___ Outside ___
Recorder No.	1817	943	4119	
Capacity	4300	5000	4000	
Depth	3198	3203	3222	

NUMBER KEY:				
1 - INITIAL HYDROSTATIC	1479	1483	1496	
2 - PRE-FLOW	1	38		
3 - INITIAL SHUT-IN	1327 (false)	1313 (false)		
4a - 2nd INITIAL FLOW			below	
4b - 2nd FINAL FLOW			straddle	
4c - 2nd SHUT-IN				
5 - 3rd INITIAL FLOW	94	88		
6 - FINAL FLOW	97	95		
7 - FINAL SHUT-IN	882	882	1003 (bleed off)	
8 - FINAL HYDROSTATIC	1478	1483	1493	

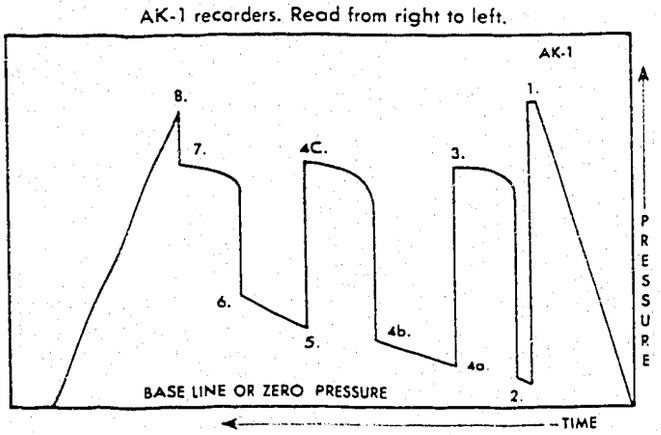
Hudsons Bay Oil And Gas Co. Ltd. - Company
HB et al Willow - A-39 - Well Name and Description
#1 - Test No.
Feb 8/73 - Date of Test

LYNES

GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

AK-1 recorders. Read from right to left.

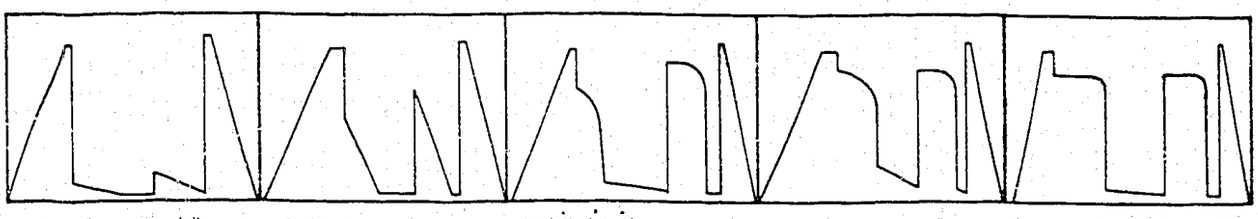


K-K-3 recorders. Read from left to right.

1. INITIAL HYDROSTATIC MUD PRESSURE
2. PRE-FLOW
3. INITIAL SHUT-IN
4a. 2nd INITIAL FLOW
4b. 2nd FINAL FLOW
4c. 2nd SHUT-IN
5. 3rd INITIAL FLOW
6. FINAL FLOW
7. FINAL SHUT-IN
8. FINAL HYDROSTATIC MUD PRESSURE

N.B. When only two shut-in and flow periods are run, 4a, 4b and 4c are omitted.

Typical charts for visual field analysis ranging from very low to high permeability.



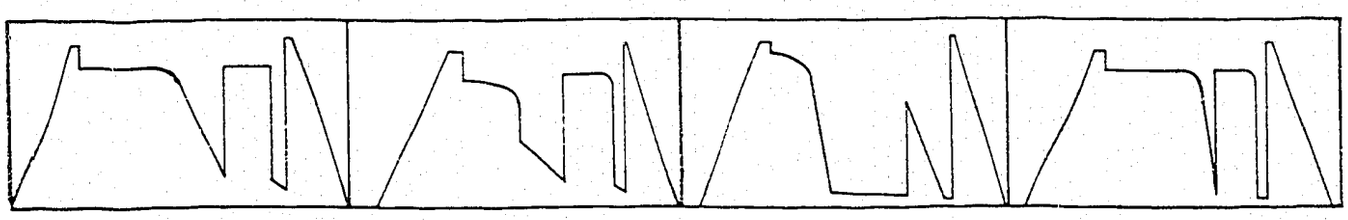
Very low permeability. Usually only mud recovered from interval tested. Virtually no permeability.

Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200' ft).

Average permeability. Final and initial shut-ins differ by 50 psi.

Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

Deep well bore invasion or damage. Final shut-in higher than the initial shut-in.

Tight hole chamber tester. Permeability very difficult to interpret unless the recovery is less than chamber length. Flow pressure builds up rapidly if recovery is large, similar to a shut-in

Hudson's Bay Oil and Gas Company Limited — DAILY DRILLERS REPORT

DATE Feb 11/73

WELL NAME Hudson Bay Ft St. Willow A-39	LDG., FLG. TO KB	CASING RECORD	COMPANY SUPERVISOR
CONTRACTOR Commonwealth Drlg	K. B. ELEV.		
RIG NO. 12 TYPE RIG	GRD. ELEV		
TOOL PUSHER K. Plante.			

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN

12 P.M. TO 8 A.M.

DEPTH

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	START FROM	PROGRESS TO	PROGRESS FOOTAGE	PROGRESS HRS. RUN	END

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES Feet plug # 2 @ 530. feet.

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	7 00	W. O. G. + clean tanks + cellar.
7 00	8 00	Feet plug lay down D Pipe.

8 A.M. TO 4 P.M.

DEPTH

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	START FROM	PROGRESS TO	PROGRESS FOOTAGE	PROGRESS HRS. RUN	END

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
8 00		Drain pumps - Lay down
	4 00	Kelly Tear out B.O.Ps

4 P.M. TO 12 P.M.

DEPTH

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	START FROM	PROGRESS TO	PROGRESS FOOTAGE	PROGRESS HRS. RUN	END

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
4 00	12 00	Tear out R. 9
		Rig released 11:59 PM

2C 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited — DAILY DRILLERS REPORT

DATE Feb 10/73

WELL NAME Hudson Bay E-Ac Willow A-39
CONTRACTOR Commonwealth Rig
RIG NO. 12
TYPE RIG
TOOL PUSHER Ken Plante

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN

COMPANY SUPERVISOR

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH			
BIT RECORD	START / PROGRESS / END	START / PROGRESS / END	START / PROGRESS / END
	NO. | SERIAL NO. | TYPE | SIZE | FROM | TO | FOOTAGE | HRS. RUN	NO. | SERIAL NO. | TYPE | SIZE | FROM | TO | FOOTAGE | HRS. RUN	NO. | SERIAL NO. | TYPE | SIZE | FROM | TO | FOOTAGE | HRS. RUN
DRILLING DATA	LINER SIZE | PUMP PRESSURE | TABLE SPEED | WEIGHT ON BIT	LINER SIZE | PUMP PRESSURE | TABLE SPEED | WEIGHT ON BIT	LINER SIZE | PUMP PRESSURE | TABLE SPEED | WEIGHT ON BIT
DRILLING STRING	SIZE | STANDS | SINGLES | DRILL COL. | KELLY IN | CORE BBL.	SIZE | STANDS | SINGLES | DRILL COL. | KELLY IN | CORE BBL.	SIZE | STANDS | SINGLES | DRILL COL. | KELLY IN | CORE BBL.
MUD RECORD	TYPE OF MUD | WEIGHT | VIS | WL | PH | FC	TYPE OF MUD | WEIGHT | VIS | WL | PH | FC	TYPE OF MUD | WEIGHT | VIS | WL | PH | FC
	Plug 1A - 180 SKs 48 gal.	Plug 1B 180 sks. 48 Gal.	Plug #2 = 620-520'
	Yd 240 cu PP in place 7 AM.	Yd 240 cu ft in place	105 sks 3% CaCl2 in
	ADDITIVES 4000'-3500'	ADDITIVES 9:30 AM. 3500-3000'	ADDITIVES Place 9 PM
CORING	NO. | FROM | TO | RECOVERED | FORMATION	NO. | FROM | TO | RECOVERED | FORMATION	NO. | FROM | TO | RECOVERED | FORMATION
SURVEY	DEG. AT FT. | DEG. AT FT. | DEG. AT FT.	DEG. AT FT. | DEG. AT FT. | DEG. AT FT.	DEG. AT FT. | DEG. AT FT. | DEG. AT FT.
DRILL STEM TESTS	NO. INTERVAL FORMATION VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.) GAS TO SURFACE MIN. @ MCF/D MAX. OIL TO SURFACE MIN. @ BBL/D MAX. RECOVERY: PRESS-URES | IHP | FHP | IFP | FFP | ISIP | FSIP	NO. INTERVAL FORMATION VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.) GAS TO SURFACE MIN. @ MCF/D MAX. OIL TO SURFACE MIN. @ BBL/D MAX. RECOVERY: PRESS-URES | IHP | FHP | IFP | FFP | ISIP | FSIP	NO. INTERVAL FORMATION VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.) GAS TO SURFACE MIN. @ MCF/D MAX. OIL TO SURFACE MIN. @ BBL/D MAX. RECOVERY: PRESS-URES | IHP | FHP | IFP | FFP | ISIP | FSIP
REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS	FROM | TO | DESCRIPTION OF WORK	FROM | TO | DESCRIPTION OF WORK	FROM | TO | DESCRIPTION OF WORK
	1200 | 115 | Run in Open End	800 | 900 | Run plug #1-B	400 | 500 | Lay down pipe
	115 | 215 | Pick up 17 sngls	900 | 1030 | Hoist 20 stds	500 | 600 | Run in To 620'
	215 | 400 | Thaw Kelly Hose & Kelly	1030 | 1100 | Break Circ	600 | 900 | Cement plug #2
	400 | 515 | Circ To Run Plugs	1100 | 400 | Lay down pipe	900 | 915 | Hoist 9 STD & Lay 2 SNGLS Down
	515 | 530 | Rig To Cement		915 | 1700 | W.O.C.
	530 | 645 | Work On Halliburton Air		
	645 | 715 | Mix & Place # 1A Plug		
	715 | 745 | Hoist 7 STDS		
	745 | 800 | Rig To Run Plug # 1B		
	DRILLER Eric Judges NO. HELPERS 4	DRILLER J. Craig NO. HELPERS 4	DRILLER NO. HELPERS

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REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Feb 9/43.

WELL NAME Hudson Bay Ft Al Willow A-39
CONTRACTOR Commonwealth Drlg TYPE RIG
RIG NO. 12 TOOL PUSHER H. Chester.

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH			

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	430	Make Up D.S.T. # 1
430	445	Service Rig
445	800	Run In Slow

DRILLER Eric Zebryk NO. HELPERS 4

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8 A.M. TO 4 P.M.

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

NO.	FROM	TO	RECOVERED	FORMATION

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

NO. 1 INTERVAL 3730-3210 FORMATION
VALVE OPEN (MINS.) 30 INITIAL SHUT-IN (MINS.) 60 FINAL SHUT-IN (MINS.) 120
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY: 150' mud.
PRESSURES IHP 1515 FHP 1515 IFP 101 FFP 101 ISIP Non FSIP Non

FROM	TO	DESCRIPTION OF WORK
800	900	Make up Testing head. Blow flare Vine
900	1245	Testing
1245	330	Hoist Testing Tools
330	~~400~~	Break down-Load out packer
~~530~~	~~600~~	~~Finish Hoist Tail pipe~~
~~600~~	~~Wait on~~	

DRILLER J. Lang NO. HELPERS 4

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4 P.M. TO 12 P.M.

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

NO.	FROM	TO	RECOVERED	FORMATION

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
400	530	Break down hoad out packer
530	600	Finish hoist Tail pipe
600	815	W. O. ORDERS
815	900	Run In D.Cs.
900	930	Rig To Lay Down D.Cs.
930	1130	Lay Down D.Cs.
1130	1200	Run In Open End

DRILLER NO. HELPERS

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Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE FEB 8/73

WELL NAME Hudson Bay Et-Al Willow A-39	LDG. FLG. TO KB	CASING RECORD	DEPTH / SIZE / WEIGHT / GRADE / CEMENT / ADD. / PLUG DOWN
CONTRACTOR	TYPE RIG	K. B. ELEV.	COMPANY SUPERVISOR JEW
RIG NO.	TOOL PUSHER Hal Slater	GRD. ELEV.	

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 1.D. PROGRESS END	START PROGRESS END	START PROGRESS END
BIT RECORD	NO. / SERIAL NO. / TYPE / SIZE / FROM / TO / FOOTAGE / HRS. RUN	NO. / SERIAL NO. / TYPE / SIZE / FROM / TO / FOOTAGE / HRS. RUN	NO. / SERIAL NO. / TYPE / SIZE / FROM / TO / FOOTAGE / HRS. RUN
DRILLING DATA	LINER SIZE / PUMP PRESSURE / TABLE SPEED / WEIGHT ON BIT	LINER SIZE / PUMP PRESSURE / TABLE SPEED / WEIGHT ON BIT	LINER SIZE / PUMP PRESSURE / TABLE SPEED / WEIGHT ON BIT
DRILLING STRING	SIZE / STANDS / SINGLES / DRILL COL. / KELLY IN / CORE BBL.	SIZE / STANDS / SINGLES / DRILL COL. / KELLY IN / CORE BBL.	SIZE / STANDS / SINGLES / DRILL COL. / KELLY IN / CORE BBL.
MUD RECORD	TYPE OF MUD / WEIGHT / VIS / WL / PH / FC ADDITIVES Gel - 1100 #	TYPE OF MUD / WEIGHT / VIS / WL / PH / FC ADDITIVES	TYPE OF MUD / WEIGHT / VIS / WL / PH / FC ADDITIVES
CORING	NO. / FROM / TO / RECOVERED / FORMATION	NO. / FROM / TO / RECOVERED / FORMATION	NO. / FROM / TO / RECOVERED / FORMATION
SURVEY	DEG. AT FT. / DEG. AT FT. / DEG. AT FT.	DEG. AT FT. / DEG. AT FT. / DEG. AT FT.	DEG. AT FT. / DEG. AT FT. / DEG. AT FT.
DRILL STEM TESTS	NO. / INTERVAL / FORMATION VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.) GAS TO SURFACE / MIN. @ / MCF/D MAX. OIL TO SURFACE / MIN. @ / BBL/D MAX. RECOVERY: PRESSURES IHP / FHP / IFP / FFP / ISIP / FSIP	NO. / INTERVAL / FORMATION VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.) GAS TO SURFACE / MIN. @ / MCF/D MAX. OIL TO SURFACE / MIN. @ / BBL/D MAX. RECOVERY: PRESSURES IHP / FHP / IFP / FFP / ISIP / FSIP	NO. / INTERVAL / FORMATION VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.) GAS TO SURFACE / MIN. @ / MCF/D MA OIL TO SURFACE / MIN. @ / BBL/D M RECOVERY: PRESSURES IHP / FHP / IFP / FFP / ISIP / FS
REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS	FROM / TO / DESCRIPTION OF WORK 12[00] / 12[45] / Log By SCHLUMBERGER 12[45] / 1[00] / TEAR OUT Loggers 1[00] / 4[00] / WAIT ON ORDERS	FROM / TO / DESCRIPTION OF WORK 8[00] / 4[00] / WAIT ON ORDERS SERVICE RIG & CHECK B.O.P	FROM / TO / DESCRIPTION OF WORK 4[00] / 4[15] / Rig Serv. & B.O.Ps 4[15] / Wait on ORDERS
	DRILLER Ray Stevens NO. HELPERS 1	DRILLER Eric Tibbjin NO. HELPERS	DRILLER J. Levy NO. H

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REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE FEB 7/73

WELL NAME Hudson BAY ET-AL Willow A-39
CONTRACTOR Commonwealth Drlg TYPE RIG Unit 34
RIG NO. 12 TOOL PUSHER Ron Hoste.

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN

COMPANY SUPERVISOR Uren

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START T.D. PROGRESS END	START PROGRESS END	START PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel	8.8	61	16.2	10.0	2/32

ADDITIVES

8 A.M. TO 4 P.M.

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Mud Induction Laterolog					40000-2500
Sidewall Neutron Porosity					"
Formation Density					"
Borehole Compensated Sonic					"
Continuous Dipmeter					"

ADDITIVES

4 P.M. TO 12 P.M.

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

20-5 4.

CORING

NO.	FROM	TO	RECOVERED	FORMATION

8 A.M. TO 4 P.M.

NO.	FROM	TO	RECOVERED	FORMATION

4 P.M. TO 12 P.M.

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

12 DEG. AT 4000 FT. | DEG. AT FT. | DEG. AT FT.

8 A.M. TO 4 P.M.: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

4 P.M. TO 12 P.M.: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO.	INTERVAL	FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @	MCF/D MAX.
OIL TO SURFACE	MIN. @	BBL/D MAX.
RECOVERY:		
PRESSURES	IHP FHP IFP FFP ISIP FSIP	

8 A.M. TO 4 P.M.

NO.	INTERVAL	FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @	MCF/D MAX.
OIL TO SURFACE	MIN. @	BBL/D MAX.
RECOVERY:		
PRESSURES	IHP FHP IFP FFP ISIP FSIP	

4 P.M. TO 12 P.M.

NO.	INTERVAL	FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @	MCF/D MAX.
OIL TO SURFACE	MIN. @	BBL/D MAX.
RECOVERY:		
PRESSURES	IHP FHP IFP FFP ISIP FSIP	

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00		Rig Service BOPs &
	13 30	Blow Kelly
13 30	3 00	Dummy Trip To Collars
3 00	5 00	Circ To Log
5 00	5 30	Blow Kelly & Survey
5 30	8 00	Hoist To Log

DRILLER Ray Stum NO. HELPERS 4

8 A.M. TO 4 P.M.

FROM	TO	DESCRIPTION OF WORK
8 00	8 30	Rig To Logg.
8 30	4 00	Logging By Schlumberger

DRILLER Schlumberger NO. HELPERS

4 P.M. TO 12 P.M.

FROM	TO	DESCRIPTION OF WORK
4 00	12 00	Logging By Schlumberger

DRILLER Ray Stum NO. HELPERS 4

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Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE FEB 6/75

WELL NAME	HUDSON BAY ET-AL WILLOW A-39	LDG. FLG. TO KB	CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
CONTRACTOR	COMMONWEALTH DRLG TYPE RIG UNIT 134	K. B. ELEV.									
RIG NO.	12 TOOL PUSHER Joe Plante	GRD. ELEV.									

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 3815 PROGRESS 35 END 3910	START 3910 PROGRESS 42 END 3952	START 3952 PROGRESS 48 END 4000

BIT RECORD

12 P.M. TO 8 A.M.								
NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
8		X55	8 3/4	3496	3910	414	58 1/4

8 A.M. TO 4 P.M.							
NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
8		X55R	8 3/4	3496	3952	456	66

4 P.M. TO 12 P.M.							
NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
8		X55R	8 3/4	3496	4000	504	13 3/4

DRILLING DATA

12 P.M. TO 8 A.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2	600	50	33,000

8 A.M. TO 4 P.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2	600	50	33M

4 P.M. TO 12 P.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2		50	33M

DRILLING STRING

12 P.M. TO 8 A.M.					
SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	54		515.76	17	

8 A.M. TO 4 P.M.					
SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	54	1	520.60	30	

4 P.M. TO 12 P.M.					
SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"					

MUD RECORD

12 P.M. TO 8 A.M.					
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
GEL	8.8	45	20	10.0	4/32

ADDITIVES GEL 2000
FIBER 4 SKS
SAWDUST 30 SKS

8 A.M. TO 4 P.M.					
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
GEL	8.8	54	12.0	9.5	2/32

ADDITIVES GEL 2,800 #
CAUSTIC 700 #

4 P.M. TO 12 P.M.					
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
GEL	8.8	65		10.5	2/32

ADDITIVES

CORING

12 P.M. TO 8 A.M.				
NO.	FROM	TO	RECOVERED	FORMATION

8 A.M. TO 4 P.M.				
NO.	FROM	TO	RECOVERED	FORMATION

4 P.M. TO 12 P.M.				
NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

12 P.M. TO 8 A.M.					
DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

8 A.M. TO 4 P.M.					
DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

4 P.M. TO 12 P.M.					
DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

12 P.M. TO 8 A.M.							
NO.	INTERVAL			FORMATION			
VALVE OPEN (MINS.)		INITIAL SHUT-IN (MINS.)		FINAL SHUT-IN (MINS.)			
GAS TO SURFACE		MIN. @		MCF/D MAX.			
OIL TO SURFACE		MIN. @		BBL/D MAX.			
RECOVERY:							
PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP	

8 A.M. TO 4 P.M.							
NO.	INTERVAL			FORMATION			
VALVE OPEN (MINS.)		INITIAL SHUT-IN (MINS.)		FINAL SHUT-IN (MINS.)			
GAS TO SURFACE		MIN. @		MCF/D MAX.			
OIL TO SURFACE		MIN. @		BBL/D MAX.			
RECOVERY:							
PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP	

4 P.M. TO 12 P.M.							
NO.	INTERVAL			FORMATION			
VALVE OPEN (MINS.)		INITIAL SHUT-IN (MINS.)		FINAL SHUT-IN (MINS.)			
GAS TO SURFACE		MIN. @		MCF/D MAX.			
OIL TO SURFACE		MIN. @		BSL/D MAX.			
RECOVERY:							
PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP	

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

12 P.M. TO 8 A.M.		
FROM	TO	DESCRIPTION OF WORK
12 00	1 00	MUD LOSS CIRC. MATERIAL
1 00	1 30	BLOW KELLY RIG SERV. VALVES
1 30	4 00	RUN IN (SLOW)
4 00	8 00	DRLG

8 A.M. TO 4 P.M.		
FROM	TO	DESCRIPTION OF WORK
8 00	12 00	DRLG.
12 00	12 15	SERVICE RIG + CHECK BOPs
12 15	4 00	DRLG.

4 P.M. TO 12 P.M.		
FROM	TO	DESCRIPTION OF WORK
4 00	6 00	DRLG
6 00	6 15	SERVICE RIG & CHECK BOPs
6 15	12 00	DRLG

DRILLER Gay Thom NO. HELPERS 4

DRILLER Eric Dubois NO. HELPERS 4

DRILLER Gay Thom NO. HELPERS 4

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Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE FEB 5 /73

WELL NAME HUDSON BAY ET-AL WILLOW A-39
CONTRACTOR COMMONWEALTH DRLG TYPE RIG UNIT 34
RIG NO. 12 TOOL PUSHER Ed Plante

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

12 P.M. TO 8 A.M.

DEPTH: START 3749 PROGRESS 51 END 3800

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4		X55R	8 3/4	3496	3800	304	45 3/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
4 1/2 x 15	600	50	33,000

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4	52	3246.83	18 515.76	33	SUBS 4.44

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES GEL 1500

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	12 30	Rig SERVICE & B.O.P's & SURVEY
12 30	8 00	DRILL 8 3/4" HOLE

DRILLER Ray Stevens NO. HELPERS 4

8 A.M. TO 4 P.M.

START 3800 PROGRESS END

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
8		X55R	8 3/4	3496	3868	372	53 1/2

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2	600	50	33M

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4	53 3310.78	18	520.60	36.62	

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
GEL	8.9	48		10.5	

ADDITIVES GEL - 1500 #
CAUSTIC - 100 #
SODA ASH - 100 #

NO.	FROM	TO	RECOVERED	FORMATION

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
8 00	9 00	DRLG.
9 00	9 15	SERVICE RIG + CHECK B.O.P.
9 15	4 00	DRLG.

DRILLER Eric Lubyan NO. HELPERS 4

4 P.M. TO 12 P.M.

START 3864 PROGRESS 7 END 3875

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4		X55R	8 3/4	3496	3875	379	

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 15	600	50	33,000

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4	55 3448.21	1	515.76	13	

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
	8.9	50	15	10.5	2/32

5 INNER TUBES & 50 SAWDUST SKS.

ADDITIVES GEL - 2400 D.V. 68 1/gal
~~CAUSTIC - 100~~ SAWDUST 80 SKS
CANE FIBER last 100 lbs mud 175 bbls

NO.	FROM	TO	RECOVERED	FORMATION

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
4 00	4 30	DRILL
4 30	4 45	SERVICE Rig & V B.O.P.
4 45	5 00	DRILL Lost CIRC 100 Bbl.
5 00	7 00	MIX LOSS CIRC MATERIAL BUILD VOLUME
7 00	9 30	TRIP OUT BREAK JARRED COLLAR
9 30	10 00	RUN IN 12 STANDS OPEN END
10 00	12 00	MIX LOSS CIRC MATERIAL + PUMP SAME 75 Bbl regain circulation

DRILLER Ray Stevens NO. HELPERS 4

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REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE FEB 1 / 73

WELL NAME Hudson Bay et Al Willow A-39
CONTRACTOR Commonwealth Drlg TYPE RIG Unit 34
RIG NO. 12 TOOL PUSHER Ken Clarke.

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN

COMPANY SUPERVISOR Greig

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 3591 PROGRESS 65 END 3656	START 3656 PROGRESS 42 END 3698	START 3698 PROGRESS 51 END 3749

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
8		X55R	8 3/4	3496	3656	160	22 3/4

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
8		X55R	8 3/4	3496	3698	202	30 1/2

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
8		X55R	8 3/4	3496	3749	253	38 1/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2	600	50	33,000

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2	600	50	33

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2	600	50	33,000

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4	50	312.84	515.76	14'	

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	50	1	18 520.60	23	

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	51		18 515.76	41	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel	9.0	52	70+	10.5	2/32

ADDITIVES Caustic 100#
Gel 2500#

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel	8.8	46	18.9	10.0	3/32

ADDITIVES Gel 3000#
Soda Ash 50#

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
	8.8	50	18	10.5	2/32

ADDITIVES Gel 1000#

CORING

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12:00	12:45	Rig Service & B.O.Ps
12:45	8:00	Drill 8 3/4" Hole

DRILLER Ray Stevens NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
8:00	12:45	Drlg.
12:45	1:00	Service Rig & Check B.O.Ps
1:00	4:00	Drlg.

DRILLER Eric Dubojen NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
4:00	7:45	Drill 8 3/4" Hole
7:45	8:00	Rig Service & B.O.Ps
8:00	12:00	Drill 8 3/4" Hole

DRILLER Ray Stevens NO. HELPERS 4

52 · 8BAX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited — DAILY DRILLERS REPORT

DATE Feb. 3/73

WELL NAME Hudson Bay Et Al Willow A-39
CONTRACTOR Commonwealth Drilling TYPE RIG Unit 34
RIG NO. 12 TOOL PUSHER Holdaste.

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

12 P.M. TO 8 A.M.

DEPTH START 3483 PROGRESS 13 END 3496

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
7	49043	X55R	8 3/4	2710	3496	786	116 1/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 X 14	600	50	33,000

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4	47	1	515.76	16	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES Gel 1600

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	1 30	DRILL 8 3/4" HOLE
1 30	1 45	RIG SERVICE & W.O.P.S
1 45	2 15	DRILL 8 3/4" HOLE
2 15	2 30	BLOW KELLY
2 30	8 00	TRIP FOR BIT

DRILLER Ray Stevens NO. HELPERS 4

8 A.M. TO 4 P.M.

DEPTH START 3496 PROGRESS 50 END 3546

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
8		X55R	8 3/4	3496	3546	50	7 1/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2	600	50	30M

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	48 2996.05		520.60	30.00	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel 2000#	9.0	38		10.5	

ADDITIVES Gel 2000 #

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

NO. 20, 4 INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
8 00	8 15	SERVICE RIG & CHECK BOPs
8 15	8 45	CLEAN 15' TO BTM.
8 45	4 00	DRLG.

DRILLER Eric Dubeau NO. HELPERS 4

4 P.M. TO 12 P.M.

DEPTH START 3546 PROGRESS 45 END 3591

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
8		X55R	8 3/4	3496	3591	95	15

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2	600	50	30

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"					

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel	9.0	40	20+	10.5	2/32

ADDITIVES Gel - 2400 #

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
4 00	5 45	DRLG.
5 45	6 00	SERVICE RIG & CHECK B.O.P.s
6 00	12 00	DRLG

DRILLER Ray Stevens NO. HELPERS 4

52 - 8BAX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Feb 21 73

WELL NAME Hudson Bay ET AL Willow A-39
CONTRACTOR Commonwealth Drilling TYPE RIG Unit 134
RIG NO. 12 TOOL PUSHER Fred Monte.

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 3365 PROGRESS 40 END 3405	START 3405 PROGRESS 36 END 3441	START 3441 PROGRESS 42 END 3483

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
7	49043	X55R	8 3/4	2710	3405	695	101 1/2
7	49043	X55A	8 3/4	2710	3441	731	107
7	49043	X55A	8 3/4	2710	3483	773	114 1/4

DRILLING DATA

12 P.M. TO 8 A.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 15	600	50	33,000

8 A.M. TO 4 P.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 15	600	50	30M

4 P.M. TO 12 P.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 15	600	50	33,000

DRILLING STRING

12 P.M. TO 8 A.M.					
SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

8 A.M. TO 4 P.M.					
SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	46 STANDS 2901.67	1	520.60	18.73	

4 P.M. TO 12 P.M.					
SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4	47	-	515.76	29	

MUD RECORD

12 P.M. TO 8 A.M.					
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel	8.7	42	10.0	12.0	2/32

ADDITIVES

8 A.M. TO 4 P.M.					
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel	8.9	45			

ADDITIVES Gel 2000#

4 P.M. TO 12 P.M.					
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

12 P.M. TO 8 A.M.		
DEG. AT FT.	DEG. AT FT.	DEG. AT FT.

8 A.M. TO 4 P.M.		
1° DEG. AT 3433 FT.	DEG. AT FT.	DEG. AT FT.

4 P.M. TO 12 P.M.		
DEG. AT FT.	DEG. AT FT.	DEG. AT FT.

DRILL STEM TESTS

12 P.M. TO 8 A.M.		
NO.	INTERVAL	FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @	MCF/D MAX.
OIL TO SURFACE	MIN. @	BBL/D MAX.
RECOVERY:		
PRESSURES	IHP FHP IFP FFP ISIP FSIP	

8 A.M. TO 4 P.M.		
NO.	INTERVAL	FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @	MCF/D MAX.
OIL TO SURFACE	MIN. @	BBL/D MAX.
RECOVERY:		
PRESSURES	IHP FHP IFP FFP ISIP FSIP	

4 P.M. TO 12 P.M.		
NO.	INTERVAL	FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @	MCF/D MAX.
OIL TO SURFACE	MIN. @	BBL/D MAX.
RECOVERY:		
PRESSURES	IHP FHP IFP FFP ISIP FSIP	

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	12 P.M. TO 8 A.M. DESCRIPTION OF WORK
12 00	1 45	DRILL 8 3/4" HOLE
1 45	2 00	Rig SERVICE & / B.O.P's
2 00	2 15	DRILL 8 3/4" HOLE
2 15	2 45	WORK on PUMP
2 45		DRILL 8 3/4" HOLE

FROM	TO	8 A.M. TO 4 P.M. DESCRIPTION OF WORK
8 00	9 00	CHANGED SEAT IN PUMP
9 00	9 45	REPAIR 4" CAMERON ON MUD LINE
9 45	10 00	SERVICE RIG + CHECK B.O.P's
10 00	2 30	DRILLING.
2 30	3 00	SURVEY
3 00	4 00	DRILLING.

FROM	TO	4 P.M. TO 12 P.M. DESCRIPTION OF WORK
4 00	8 00	DRILL 8 3/4" HOLE
8 00	8 15	Rig SERVICE & / B.O.P's
8 15	11 30	DRILL 8 3/4" HOLE
11 30	12 00	WORK on PUMP

DRILLER [signature] NO. HELPERS

DRILLER Eric Turtinen NO. HELPERS 4

DRILLER NO. HELPERS

52 - 88AX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited — DAILY DRILLERS REPORT

DATE Feb 1/73

WELL NAME H. Bay et al willow A-39 | LDG. FLG. TO KB | CASING RECORD | DEPTH | SIZE | WEIGHT | GRADE | CEMENT | ADD. | PLUG DOWN | COMPANY SUPERVISOR
CONTRACTOR CDC (western) | TYPE RIG UNIT | K. B. ELEV. | | | | | | | | |
RIG NO. 12 | TOOL PUSHER K. Hunter | GRD. ELEV. | | | | | | | | |

12 P.M. TO 8 A.M.

DEPTH START 3280 PROGRESS 47 END 3327

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
7	49043	X55R	8 3/4	2710	3280	570	79 3/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 X 14	550	45	30

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
3 1/2	43 27 19 02	1	18 520.60	41.00	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
GEL	8.6	45	60+	9.5	2/32

ADDITIVES Gel 1600

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY 1 1/4 DEG. AT 3249 FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	12 15	Rig Serv - √ B.O.Ps
12 15	2 00	Drlg
2 00	2 30	Survey
2 30	8 00	Drlg

DRILLER [illegible] NO. HELPERS 4

8 A.M. TO 4 P.M.

START 3280 PROGRESS 47 END 3327

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
7	49043	X55R	8 3/4	2710	3327	617	81 1/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 X 14	600	45	33,000

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
GEL	8.7	42	70+ 12.0		2/32

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
4 00	8 15	Rig Service & B.O.Ps
8 15	4 00	Drill 8 3/4" Hole

DRILLER [illegible] NO. HELPERS 4

4 P.M. TO 12 P.M.

START 3327 PROGRESS 38 END 3365

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
7	49043	X55R	8 3/4	2710	3365	655	94 1/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 X 14	600	48	30-M

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	45 28 11.76	0	18 520.60	22.48	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
GEL	8.8	48			

ADDITIVES GEL 4000 #

CORING

NO.	FROM	TO	RECOVERED	FORMATION

1 1/2 DEG. AT 3342 FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
4 00	6 30	Drlg
6 30	7 00	Survey
7 00	7 30	Service Rig & Check B.O.Ps & Clean Suction Tank
7 30	12 00	Drlg

DRILLER [illegible] NO. HELPERS 4

52 - 8BAX6
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE JAN 31/73

WELL NAME H.Bay et al Willow 39 A
CONTRACTOR CDC (Western) TYPE RIG Unit
RIG NO. 12 TOOL PUSHER K. Wiebe.

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN

COMPANY SUPERVISOR

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START PROGRESS END	START 3140 PROGRESS 33 END 3173	START 3173 PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
7	49043	X55R	8¾	2710	3140	430	58¾

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
7	49043	X55R	8¾	2710	3173	463	64¾

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
7	49043	X55R	8¾	2710	3230	520	72¼

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½ X14	500	45	30

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½ X14	550	45	30,000

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½ X14	550	45	30,000

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
3½	41 2593	1 75	15 520.60		

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4	42	—	5 15.76	27	—

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	43 2687	52	6 15.76	22	—

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
	8.5	42			
	8.5	42			

ADDITIVES

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
GEL	8.5	45	70+	12.0	2/32

ADDITIVES GEL 2000#
FIBER CANE 2 sks.
SAWDUST 20 sks.

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
	8.5	45	70+	12.0	2/32

ADDITIVES
Lost 20 bbls.

CORING

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12⁰⁰	12¹⁵	Rig Serv - B.O.Ps
12¹⁵	12⁴⁵	Drlg
12⁴⁵	1⁴⁵	Work on pump
1⁴⁵	5⁴⁵	Drlg
5⁴⁵	6⁰⁰	Work on pump
6⁰⁰	7³⁰	Drlg
7³⁰	8⁰⁰	Dump Suction TANK

FROM	TO	DESCRIPTION OF WORK
8⁰⁰	9¹⁵	CLEAN TANKS
9¹⁵	9³⁰	Rig SERVICE & B.O.P's
9³⁰	12⁰⁰	DRILL 8¾" HOLE
12⁰⁰	12¹⁵	CLEAN SHAKER TANK
12¹⁵	2⁰⁰	DRILL 8¾" HOLE
2⁰⁰	2¹⁵	WORK ON PUMP
2¹⁵	4⁰⁰	DRILL 8¾" HOLE

FROM	TO	DESCRIPTION OF WORK
4⁰⁰	5³⁰	DRILL 8¾" HOLE
5³⁰	5⁴⁵	Rig SERVICE & B.O.P's
5⁴⁵	8⁴⁵	DRILL 8¾ HOLE
8⁴⁵	9⁰⁰	Work on pump
9⁰⁰	12⁰⁰	Drlg

DRILLER D. Laing NO. HELPERS 4

DRILLER Gary Adams NO. HELPERS 4

DRILLER NO. HELPERS

52 - 8BAX4-
REV. 2/71

Hudson's Bay Oil and Gas Company Limited — DAILY DRILLERS REPORT

DATE JAN 30/73

WELL NAME Hudson Bay et al Willow A-39
CONTRACTOR CDC (Western) TYPE RIG Unit
RIG NO. 12 TOOL PUSHER Kirkpatrick

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 2964 PROGRESS 56 END 3020	START 3020 PROGRESS 43 END 3063	START 3063 PROGRESS END
BIT RECORD	NO. 7 · SERIAL NO. 49043 · TYPE X55R · SIZE 8 3/4 · FROM 2710 · TO 3020 · FOOTAGE 310 · HRS. RUN 37 1/4	NO. 7 · SERIAL NO. 49043 · TYPE X55R · SIZE 8 3/4 · FROM 2710 · TO 3063 · FOOTAGE 43 · HRS. RUN 4/5	NO. 7 · SERIAL NO. 49043 · TYPE X55R · SIZE 8 3/4 · FROM 3063 · TO 3110 · FOOTAGE 400 · HRS. RUN 52 3/4
DRILLING DATA	LINER SIZE 5 1/2 x 14 · PUMP PRESSURE 475 · TABLE SPEED 45 · WEIGHT ON BIT 30,000	LINER SIZE 5 1/2 x 14 · PUMP PRESSURE 500 · TABLE SPEED 45 · WEIGHT ON BIT 30,000	LINER SIZE 5 1/2 x 14 · PUMP PRESSURE 500 · TABLE SPEED 45 · WEIGHT ON BIT 30
DRILLING STRING	SIZE 3 1/2 · STANDS 39 · SINGLES 1 · DRILL COL. 18 · KELLY IN 30.60 · CORE BBL.	SIZE 4 · STANDS 40 · SINGLES — · DRILL COL. 4 1/4 3SR-2L DN · KELLY IN · CORE BBL.	SIZE · STANDS · SINGLES · DRILL COL. · KELLY IN · CORE BBL.
MUD RECORD	TYPE OF MUD Gel · WEIGHT 8.6 · VIS 47 · WL 70 · PH · FC	TYPE OF MUD Gel · WEIGHT 8.6 · VIS 47 · WL 70 · PH 12.5 · FC 2/32	TYPE OF MUD · WEIGHT 8.6 · VIS 47 · WL · PH · FC
	ADDITIVES	ADDITIVES Gel - 1000 #	ADDITIVES
CORING	NO. · FROM · TO · RECOVERED · FORMATION	NO. · FROM · TO · RECOVERED · FORMATION	NO. · FROM · TO · RECOVERED · FORMATION
SURVEY	3/4 DEG. AT 3000 FT. · DEG. AT FT. · DEG. AT FT.	DEG. AT FT. · DEG. AT FT. · DEG. AT FT.	DEG. AT FT. · DEG. AT FT. · DEG. AT FT.
DRILL STEM TESTS	NO. · INTERVAL · FORMATION VALVE OPEN (MINS.) · INITIAL SHUT-IN (MINS.) · FINAL SHUT-IN (MINS.) GAS TO SURFACE · MIN. @ · MCF/D MAX. OIL TO SURFACE · MIN. @ · BBL/D MAX. RECOVERY: PRESSURES · IHP · FHP · IFP · FFP · ISIP · FSIP	NO. · INTERVAL · FORMATION VALVE OPEN (MINS.) · INITIAL SHUT-IN (MINS.) · FINAL SHUT-IN (MINS.) GAS TO SURFACE · MIN. @ · MCF/D MAX. OIL TO SURFACE · MIN. @ · BBL/D MAX. RECOVERY: PRESSURES · IHP · FHP · IFP · FFP · ISIP · FSIP	NO. · INTERVAL · FORMATION VALVE OPEN (MINS.) · INITIAL SHUT-IN (MINS.) · FINAL SHUT-IN (MINS.) GAS TO SURFACE · MIN. @ · MCF/D MAX. OIL TO SURFACE · MIN. @ · BBL/D MAX. RECOVERY: PRESSURES · IHP · FHP · IFP · FFP · ISIP · FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	12 15	Rig Serv - UBops
12 15	4 30	Drlg
4 30	5 00	Survey @ 3000'
5 00	8 00	Drlg

FROM	TO	DESCRIPTION OF WORK
8 00	10 00	DRILL 8 3/4" HOLE
10 00	10 15	RIG SERVICE & U B.O.PS
10 15	4 00	DRILL 8 3/4" HOLE

FROM	TO	DESCRIPTION OF WORK
4 00	4 15	Rig Service & U B.O.Ps
4 15	12 00	DRILL 8 3/4" HOLE

DRILLER J. Lacy NO. HELPERS 4 | DRILLER Ray Stern NO. HELPERS 4 | DRILLER NO. HELPERS

52 - 86AX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE JAN 29/73

WELL NAME H. Bay et al Willow A-39
CONTRACTOR C. D.C Western LTD TYPE RIG UNIT
RIG NO. 12 TOOL PUSHER K. Wolante

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START	2850 PROGRESS 57 END 2907	START 2907 PROGRESS END
BIT RECORD	NO. 7 SERIAL NO. 49043 TYPE X55R SIZE 8 3/4 FROM 2710 TO 2850 FOOTAGE 140 HRS. RUN 15 1/2	NO. 1 SERIAL NO. 49043 TYPE X55R SIZE 8 3/4 FROM 2850 TO 2907 FOOTAGE 57 HRS. RUN 22 1/2	NO. 1 SERIAL NO. 49043 TYPE X55R SIZE 8 3/4 FROM 2710 TO 2964 FOOTAGE 254 HRS. RUN 30 1/2
DRILLING DATA	LINER SIZE 5 1/2 x 14 · PUMP PRESSURE 450 · TABLE SPEED 48 · WEIGHT ON BIT 30	LINER SIZE 5 1/2 x 14 · PUMP PRESSURE 450 · TABLE SPEED 45 · WEIGHT ON BIT 30,000	LINER SIZE 5 1/2 · PUMP PRESSURE 475 · TABLE SPEED 45 · WEIGHT ON BIT 30
DRILLING STRING	SIZE 3 1/2 · STANDS 37 · SINGLES 2313.12 · DRILL COL. 18.520.60 · KELLY IN 16 · CORE BBL.	SIZE 3 1/2 · STANDS · SINGLES · DRILL COL. K-520.60 · KELLY IN · CORE BBL.	SIZE · STANDS · SINGLES · DRILL COL. · KELLY IN · CORE BBL.
MUD RECORD	TYPE OF MUD Gel · WEIGHT 8.6 · VIS 48 · WL 70 · 1826.22 · 2/32	TYPE OF MUD GEL · WEIGHT 8.6 · VIS 48 · WL 70+ · PH 12.5 · FC 2/32	TYPE OF MUD Gel · WEIGHT 8.6 · VIS 47 · WL 40 · PH 12 · FC 2/32
	ADDITIVES	ADDITIVES GEL 500#	ADDITIVES
CORING	NO. · FROM · TO · RECOVERED · FORMATION	NO. · FROM · TO · RECOVERED · FORMATION	NO. · FROM · TO · RECOVERED · FORMATION
SURVEY	DEG. AT FT. · DEG. AT FT. · DEG. AT FT.	3/4 DEG. AT 2870 FT. · DEG. AT FT. · DEG. AT FT.	DEG. AT FT. · DEG. AT FT. · DEG. AT FT.
DRILL STEM TESTS	NO. · INTERVAL · FORMATION · VALVE OPEN (MINS.) · INITIAL SHUT-IN (MINS.) · FINAL SHUT-IN (MINS.) · GAS TO SURFACE · MIN. @ · MCF/D MAX. · OIL TO SURFACE · MIN. @ · BBL/D MAX. · RECOVERY: · PRESSURES IHP FHP IFP FFP ISIP FSIP	NO. · INTERVAL · FORMATION · VALVE OPEN (MINS.) · INITIAL SHUT-IN (MINS.) · FINAL SHUT-IN (MINS.) · GAS TO SURFACE · MIN. @ · MCF/D MAX. · OIL TO SURFACE · MIN. @ · BBL/D MAX. · RECOVERY: · PRESSURES IHP FHP IFP FFP ISIP FSIP	NO. · INTERVAL · FORMATION · VALVE OPEN (MINS.) · INITIAL SHUT-IN (MINS.) · FINAL SHUT-IN (MINS.) · GAS TO SURFACE · MIN. @ · MCF/D MAX. · OIL TO SURFACE · MIN. @ · BBL/D MAX. · RECOVERY: · PRESSURES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	12 15	Rig Serv. & B.O.Ps
12 15	8 00	Drlg

FROM	TO	DESCRIPTION OF WORK
8 00	11 00	DRILL 8 3/4" HOLE
11 00	11 45	RIG SERVICE & B.O.P.S SURVEY
11 45	11 52	& CLEAN SHAKER TANK
11 52	4 00	DRILL 8 3/4" HOLE

FROM	TO	DESCRIPTION OF WORK
4 00	4 15	RIG SERVICE & B.O.P.S
4 15	12 00	DRILL 8 3/4" HOLE

DRILLER J. Lang NO. HELPERS 4 | DRILLER Ray Stevens NO. HELPERS 4 | DRILLER NO. HELPERS

52 - 8BAX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited — DAILY DRILLERS REPORT

DATE JAN 28/73

WELL NAME A. Bayetal Willow 39-A
CONTRACTOR Commonwealth TYPE RIG UNIT-34D
RIG NO. 12 TOOL PUSHER Stan Clarke.

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

12 P.M. TO 8 A.M.

DEPTH START 2710 PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
7	49043	X55R	8¾	2710			

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½x14	450	45	

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
3½	34	1	4-7" 14-6¾"		

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12⁰⁰	12¹⁵	Rig Serv. ✓ B.O.Ps
12¹⁵	2³⁰	Hoist (partially plugged B.H.)
2³⁰	5⁰⁰	Dump & Clean Suction Tank
		Work on pump - Hookup Hydramatic
5⁰⁰	7⁰⁰	Run in w/ X55R
7⁰⁰	8⁰⁰	Thaw out Kelly Hose

DRILLER J. Grey NO. HELPERS 4

8 A.M. TO 4 P.M.

START PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
4⁰⁰	8¹⁵	Rig Service & ✓ B.O.Ps
8¹⁵	3⁴⁵	Blow Kelly & Trip for Pulled Bit
3⁴⁵	4¹⁵	Blow Kelly

DRILLER Ray Stevens NO. HELPERS 4

4 P.M. TO 12 P.M.

START PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
7	49043	X55R	8¾	2710	2781	71	7¾

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
	450	45	30,000

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
3½	33 218.62	3 1.48	1 8-520.60	41	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
GEL	8.6	48			

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
4⁰⁰	4¹⁵	Rig Serv. ✓ B.O.Ps
4¹⁵	12⁰⁰	Drilling

DRILLER NO. HELPERS

52 - 88AX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE JAN 27/73

WELL NAME H. Bay et al Willow 39-A		LDG. FLG. TO KB.	
CONTRACTOR Commonwealth	TYPE RIG	K. B. ELEV.	
RIG NO. 12	TOOL PUSHER Ted Slaster.	GRD. ELEV.	

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

12 P.M. TO 8 A.M.

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	PROGRESS TO	END FOOTAGE	END HRS. RUN
RR	33433	SDV	8¾				

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
3½	13		14-5½"	41	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel					

ADDITIVES 2 Sawdust
1 Cement
50 Bbls.

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	1215	Rig Service - B.O.Ps
1215	130	Mix Loss Circ Material
130	200	Pump Slurry down ANNULUS
200	230	Circ Hole
230	330	Hoist open end
330	530	Pick up D.C.s Run in
530		Circ Hole - Clean out
	800	from 875' to 1380

DRILLER [illegible] NO. HELPERS 4

8 A.M. TO 4 P.M.

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	PROGRESS TO	END FOOTAGE	END HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES 16 sks Gel

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
800	815	Rig Service & B.O.P
815	300	Run in Circ to Bottom
300	400	Drill out Cement Plug
		Plug @ 2600'

DRILLER Ray Thorn NO. HELPERS 4

4 P.M. TO 12 P.M.

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	PROGRESS TO	END FOOTAGE	END HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
3½	34	1	14-7" 14-6¾"		

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
400	415	Rig Service & B.O.Ps
415	730	Drill out Cement
730	800	Work on Pump
800	1030	Drill out cement
1030	1200	Hoist for Bit change

DRILLER NO. HELPERS

52 - 8BAX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited — DAILY DRILLERS REPORT

DATE JAN 26 /73

WELL NAME Hudson Bay et al Willow A-39
CONTRACTOR Commonwealth Drlg TYPE RIG
RIG NO. 12 TOOL PUSHER Kellcote

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

12 P.M. TO 8 A.M.

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN
3AR	33433	SDV	8 3/4				

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
1"	5	~~1~~	515.76	41	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS.	WL	PH	FC
Gel	8.8	60	18	9	

ADDITIVES
2 ½ sax sawdust 3 sks Bbx.
2 3 sks gel. Lost 75 bbls

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	12 15	Rig Serv - J.B.O.P.s
12 15	2 00	Drlg Plug
2 00	4 00	Work on Boiler
4 00	6 00	Cleaning out To 875'
6 00	8 00	Lost circ - Mix Loss Circ Material

DRILLER J. Young NO. HELPERS 4

8 A.M. TO 4 P.M.

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES Caustic 20 sks Sawdust 85 sks
Gel. 26 sks. 50 sawdust sks.
15 Inner tubing.

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
8 00	10 30	Mix Loss Circ Material
10 30	11 00	Try to Turn Circ. 75 bbls.
11 00	12 15	Tripout To Remove Bit
1 15		Change Elevators & Run in
		open end & Prk up Displacement
	3 15	of Collars.
3 15	4 00	Mix Loss Circ Material

DRILLER Doug Stevens NO. HELPERS 4

4 P.M. TO 12 P.M.

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

Lost. 100 bbls.

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
4 00	4 15	Rig Service & J.B.O.P.s
4 15		Mix Loss Circ Material
		& Pump down Hole cut
		up ~~Sks~~ Sawdust Sks &
		Inner Tube
	12 00	

DRILLER Doug Stevens NO. HELPERS 4

52 — 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Jan 25/73

WELL NAME	H.B. Et Al Willow A39	LDG. FLG. TO KB	
CONTRACTOR	Commonwealth	K. B. ELEV.	
RIG NO.	12	GRD. ELEV.	
	TYPE RIG		
	TOOL PUSHER		

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
							DEW

12 P.M. TO 8 A.M.

DEPTH

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
				2477.75	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
					31 32

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00		Pick up Kelly Start pump & Motors Thaw out B.O.Ps

DRILLER [signature] NO. HELPERS

8 A.M. TO 4 P.M.

DEPTH

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
8 00	12 00	Pick up drill collars & work on #1 Pump
12 00	4 00	Pick up drill collars

DRILLER [signature] NO. HELPERS 4

4 P.M. TO 12 P.M.

DEPTH

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
			515.76		2 COMPOS 4 BRK

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

Circulate to top of pipe, Pressure tested surface to 4" pipe rams to 1000 psi, 5 minutes each Held OK. [signature]

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
4 00	4 15	Rig Service & V-B-Bs
4 15	5 15	On Thaw Kelly Hose & Pressure up
5 15	6 30	Work on Shale Shaker & Pump
6 30	10 30	Drill out Cement
10 30	11 00	Work on Air Lines
11 00	12 00	Drill out Cement

DRILLER [signature] NO. HELPERS 4

52 - 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Jan 25/73

WELL NAME	H.B. Et Al Willow A39	LDG. FLG. TO KB	
CONTRACTOR	Commonwealth	K. B. ELEV.	
RIG NO.	12	TYPE RIG	
TOOL PUSHER	Ford Monte	GRD. ELEV.	

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

12 P.M. TO 8 A.M.

DEPTH

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00		Pick up Kelly Start pump
	8 00	Motors - Thaw out B.O.Ps

DRILLER [signature] NO. HELPERS

8 A.M. TO 4 P.M.

DEPTH

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
8 00	12 00	Pick up drill collars
		& work on #1 Pump
12 00	4 00	Pick up drill collars

DRILLER [signature] NO. HELPERS 4

4 P.M. TO 12 P.M.

DEPTH

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
			515.76		4.84

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
		Waiting for top of plug, Pressure test
		Lines & pipe rams to 1000 psi.
		5 minutes each Held O.K.
4 00	4 15	Rig Service & U.B.O.Ps
4 15	5 15	Unthaw Kelly Hose & Pressure up
5 15	6 30	Work on Shale Shaker & Pump
6 30	10 30	Drill out cement
10 30	11 00	Work on air lines
11 00	12 00	Drill out cement

DRILLER [signature] NO. HELPERS 2

COMMONWEALTH DRILLING

DAILY DRILLING LOG

RIG NO. _____ LOCATION _____ LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE April 4 1922

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR MIDNIGHT TO 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:					GENERAL:												5	
																	Weather / Temp.	Water / Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS: At Feet / Degrees

REMARKS

TIME: START / STOP / INTVL.

FIRES

L. Hunter
DRILLER'S SIGNATURE

Drive to W/ 4x4

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:					GENERAL:												5	
																	Weather / Temp.	Water / Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS: At Feet / Degrees

FIRES

John T. Morse
DRILLER'S SIGNATURE

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:					GENERAL:												5	
																	Weather / Temp.	Water / Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS: At Feet / Degrees

FIRES

DRILLER'S SIGNATURE

TRANSFER #

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT ≠

Boiler Operated: Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT: RAN ____ JTS ____ CSG ____ TO ____ KB. USED ____ SAX ____ CEM ____ PLUS ____ % PLUG DOWN ____ A.M. P.M. ____ CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME ____ HRS.

TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative

Approved by Toolpusher Al Noon

CONSERVATION BOARD COPY

COM 44627

COMMONWEALTH DRILLING

DAILY DRILLING LOG

RIG NO _____ LOCATION _____ LSD ____ SEC ____ TWP ____ RGE ____ W ____ DATE April 3 19 22

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1																		
2																		
3																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: GENERAL:

Weather / Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TO 4 PM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1																		
2																		
3																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: GENERAL:

Weather / Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 PM TOUR TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1																		
2																		
3																		

MUD	4 p.m.	6 p	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: GENERAL:

Weather / Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

TIME	START	STOP	INTVL.

FIRES

DRILLER'S SIGNATURE

Drive in w/ 4x4

FIRES

DRILLER'S SIGNATURE

FIRES

DRILLER'S SIGNATURE

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

Crown-o-matic Chk'd. / Rig Savers Chk'd. / Kelly Cock Chk'd. / Site Equip. Chk'd.

TOTCO RING ON BIT # Boiler Operated: Hrs.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT: RAN JTS CSG; TO KB. USED SAX CEM; PLUS % PLUG DOWN A.M. P.M.

CEMENT RETURNS (YES/NO)

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher

CONSERVATION BOARD COPY

COM 44626

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG

RIG NO. 12 LOCATION H.B et al Willow A39 LSD. SEC. TWP. RGE. W. DATE APRIL 2 19 72

DIRECTIONS TO WELL

MAILING POINT SHIPPING POINT MILES MOVED ROAD CONDITIONS DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

B	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.		pH.		DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:					GENERAL:												5	

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS	
At Feet	Degrees

Weather Temp. Water Bbls.

8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.		pH.		DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:					GENERAL:												5	

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS	
At Feet	Degrees

Weather Temp. Water Bbls.

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.		pH.		DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:					GENERAL:												5	

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS	
At Feet	Degrees

Weather Temp. Water Bbls.

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING ON BIT # Boiler Operated 10 Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12:01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11:59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT

RAN JTS CSG

TO KB. USED SAX CEM

PLUS % PLUG DOWN A.M. P.M.

CEMENT RETURNS (YES/NO)

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD:

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative T. Sullivan

Approved by Toolpusher Al Nowe

REMARKS	TIME START	TIME STOP	TIME INTVL.
Drain & wash out D-300 deck Loads & liners Tear-out	12 AM	8 00	8
FIRES J. T. Moore DRILLER'S SIGNATURE			
Tear Out Lay Down Derrick Rig To Shut Down			
FIRES J. T. Moore DRILLER'S SIGNATURE			
FIRES DRILLER'S SIGNATURE			

CONSERVATION BOARD COPY

COM 47975

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION H. B. ET. AL. WILLOW A-39 LSD. SEC. TWP. RGE. W. DATE APRIL 1ST 19 72

DAILY DRILLING LOG
DIRECTIONS TO WELL
MAILING POINT
SHIPPING POINT
MILES MOVED
ROAD CONDITIONS
DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
1/2																		
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: GENERAL:

Weather / Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut	Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TOUR - 4 PM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
2710															

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
1/2																		
T.																		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: GENERAL:

Weather / Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut	Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 PM TOUR TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.		RAN	Plug #1			2710-2610'		50 Sat										
1/2																		
T.																		
S.		RAN	Plug #2			618-568'		70 Sat										

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: GENERAL:

Weather / Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut	Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT # Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT RAN JTS CSG. TO KB. USED SAX CEM PLUS % PLUG DOWN A.M. P.M. CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by, Toolpusher

REMARKS

TIME START	TIME STOP	INTVL.	REMARKS
			ON 24 HOUR WATCHING Boilers & Motors
8 00	130	5 1/2	WAIT ON DOWELL CEMENTERS
130	230	1	RUN IN OPEN END PIPE
230	400	1 1/2	LINE & RIG TO CEMENT
400	430	1/2	RAN Plug #1
430	700	2 1/2	LAY DOWN 67 Singles
700	715	1/4	RAN Plug #2
715	745	1/2	LAY DOWN PIPE
			BLOW MUD LINES, KELLY SOCK + MOUSE HOLE
745	900	1 1/4	BREAK & LAY DOWN KELLY
900	1200	3	Clean mud tanks

FIRES DRILLER'S SIGNATURE B. Hunter

FIRES DRILLER'S SIGNATURE J. J. Moore

CONSERVATION BOARD COPY

COM 47974

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG

RIG NO. 12 LOCATION L.S.D. Ft. N. Willow A-39 SEC. TWP. RGE. W. DATE Mar. 31 19 72

DIRECTIONS TO WELL MAILING POINT SHIPPING POINT MILES MOVED ROAD CONDITIONS DAYS FROM SPUD

TOUR MIDNIGHT TO 8 A.M. TOUR 8 A.M. TO 4 P.M. TOUR 4 P.M. TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
		2710													

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRES-SURE					No. 2 PRES-SURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
		2710													

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRES-SURE					No. 2 PRES-SURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
		2710													

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRES-SURE					No. 2 PRES-SURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT # Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd. Rig Savers Chk'd. Kelly Cock Chk'd. Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m. gals. Fuel Rec'd Today (add) gals. TOTAL gals. Fuel on Hand 11.59 p.m. (deduct) gals. FUEL USED gals.

CASING REPORT RAN JTS CSG TO KB. USED SAX CEM PLUS % PLUG DOWN A.M. P.M. CEMENT RETURNS: (YES/NO)

REMARKS

	TIME START	TIME STOP	INTVL.
Logging	1900	500	5
Run 4½ DC's & Lay Down Same	500	900	3
WAIT FOR PLAIN TO BRING CEMENTERS	800	400	8
PIPE OUT OF HOLE.			
WAIT FOR CEMENTER.	400	200	8
Pipe out			

APPROVED MAR 31 1972 CONSERVATION ENGINEER DEPARTMENT OF MINES AND NATURAL RESOURCES

FIRES

B. Hunter DRILLER'S SIGNATURE

FIRES DRILLER'S SIGNATURE

FIRES DRILLER'S SIGNATURE

RENTAL EQUIPMENT ON HAND TRANSFER #

DAYS FROM SPUD:

TOTAL COMPANY TIME HRS. TOTAL CONTRACTOR'S TIME HRS.

EQUIPMENT CHANGES

Approved by Operator's Representative

Approved by Toolpusher Fred John

CONSERVATION BOARD COPY

COM 47973

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION H. B. Ft. Ll. Willow LSD. A-39 SEC. ____ TWP. ____ RGE. ____ W. ____ DATE March 30 19 72

DAILY DRILLING LOG
DIRECTIONS TO WELL ____ MAILING POINT ____ SHIPPING POINT ____ MILES MOVED ____ ROAD CONDITIONS ____ DAYS FROM SPUD ____

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
2645	58	2703	7 3/4	84.	34 / 21	1 / 56 71		18	7" 6"	2 7/8	515.86		427		14

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
	6	8 3/4	Y55R	OUT	37258	35	60	306	42			1	450	64	— Drilling			

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	8.8	8.7	8.8	8.7
VISCOSITY	68	55	52	53
GEL				

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1	PRESSURE	500	CLEAN		500
MODEL D 300	S.P.M.	64	OUT	VALVES	64
	LINER SIZE	6 1/2	x	14	

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 2	PRESSURE	TANK	500	500	TANK
MODEL C 250	S.P.M.		60	60	
	LINER SIZE	6 1/2	x	15	

MOTOR HOURS: Fuel 6 — Next Oil Change: ____

W.L. 10.6 F.C. 2/32 pH. 10.5 DESILTER: Hours Op: ____ U. Flow: ____ O. Flow: ____

SURVEYS: At Feet ____ Degrees ____

ADDITIVES: Pertex 100# GENERAL: ____

Weather Snow Temp. Cold Water ____ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS	START	STOP	INTVL.
Rig Service Bot's	12⁰⁰	12¹⁵	1/4
Drilling	12¹⁵	8⁰⁰	7 3/4

FIRES ____ DRILLER'S SIGNATURE: B. Hunter

TOUR 8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
2703	7	2710	1 3/4	84	35 / 2188	.24		18	7" 6"	2 7/8	515.86		427		29.53

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
	6	8 3/4	Y55R	OUT	37258	35	60	313	43 3/4			1	500	64				

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	8.7	8.7	″	″
VISCOSITY	58	60	60	
GEL				

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1	PRESSURE	500			
MODEL D 300	S.P.M.	64			
	LINER SIZE	6 1/2 x	14		

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 2	PRESSURE				
MODEL C 250	S.P.M.				
	LINER SIZE	6 1/2 x 15			

MOTOR HOURS: ____ Next Oil Change: ____

W.L. 10.6 F.C. 2/32 pH. 10.5 DESILTER: Hours Op: ____ U. Flow: ____ O. Flow: ____

SURVEYS: At Feet 2710 Degrees 1°

ADDITIVES: ____ GENERAL: Kelly 2717.91 / Sch. 2710.60 / 7.31 Diff. & Corr.

Weather ____ Temp. ____ Water ____ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS	START	STOP	INTVL.
Rig Service Bot's	8⁰⁰	8¹⁵	1/4
Drilling	8¹⁵	10⁰⁰	1 3/4
Circ To Log.	10⁰⁰	10³⁰	1/2
Survey	10³⁰	10⁴⁵	1/4
Blow Mud Lines Trip &	10⁴⁵		
measure out		1⁰⁰	2 1/4
Rig To Log & Logging By	1⁰⁰		
Schlumberger		4⁰⁰	3

FIRES ____ DRILLER'S SIGNATURE: D. McGregor

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT				
VISCOSITY				
GEL				

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1	PRESSURE				
MODEL	S.P.M.				
	LINER SIZE				

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 2	PRESSURE				
MODEL	S.P.M.				
	LINER SIZE				

MOTOR HOURS: ____ Next Oil Change: ____

W.L. ____ F.C. ____ pH. ____ DESILTER: Hours Op: ____ U. Flow: ____ O. Flow: ____

SURVEYS: At Feet ____ Degrees ____

ADDITIVES: ____ GENERAL: ____

Weather ____ Temp. ____ Water ____ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS	START	STOP	INTVL.
Logging By Schlumberger			
1 man crew while			
Logging	4⁰⁰	12⁰⁰	8

FIRES ____ DRILLER'S SIGNATURE ____

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING ON BIT # ____ Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd. ____ Rig Savers Chk'd. ____ Kelly Cock Chk'd. ____ Fire Equip. Chk'd. ____

Fuel on Hand 12.01 a.m. ____ gals.
Fuel Rec'd Today (add) ____ gals.
TOTAL ____ gals.
Fuel on Hand 11.59 p.m. (deduct) ____ gals.
FUEL USED ____ gals.

CASING REPORT: RAN ____ JTS ____ CSG ____ TO ____ KB. USED ____ SAX ____ CEM ____ PLUS ____ % PLUG DOWN ____ A.M./P.M. CEMENT RETURNS — (YES/NO)

RENTAL EQUIPMENT ON HAND ____ TRANSFER # ____

DAYS FROM SPUD: ____

EQUIPMENT CHANGES ____

TOTAL COMPANY TIME ____ HRS. TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative: T. Sullivan

Approved by Toolpusher: Fred Fekin

YELLOWKNIFE N.W.T.
APR 14 1972
CONSERVATION ENGINEER
DEPT. OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

CONSERVATION BOARD COPY

COM 47972

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION H.B. ET. AL. Wilkow LSD 39 SEC. ___ TWP. ___ RGE. ___ W. ___ DATE March 29 1972

DAILY DRILLING LOG

DIRECTIONS TO WELL ___ MAILING POINT ___ SHIPPING POINT ___ MILES MOVED ___ ROAD CONDITIONS ___ DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 AM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
2490	44	2534	7½	80	32 / 2000	62	18	7" 6"	2 7/8	515.86		428		22

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
	6	8¾	ESSR	OUT	37258	35	60	137	19¾			1	400	64	—	Drill		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP No. 1	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP No. 2	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	8.9	8.9	8.8	8.8	PRESSURE	400	400	450	450	PRESSURE	on mud			
VISCOSITY	40	43	55	55	MODEL D 300 S.P.M.	64	64	64	64	MODEL C 250 S.P.M.	mixer			
GEL					LINER SIZE	6½	×	14		LINER SIZE	6½	×	15	

W.L. 10.6 F.C. 2/32 pH. 11.5 DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet 2530 Degrees 1½

MOTOR HOURS: 1 — 2 — 3 — 4 — 5 — Next Oil Change

ADDITIVES: GEL – 400# ; Soda Ash – 100 ; CMC – 200 ; Peltex 200

GENERAL: Clean Suction Tank

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record: Size | Make | Serial No. | No. Lines | Trips | Ton Miles | Total Miles | Feet Slip or Cut | At Miles | Date Slip or Cut | Next Slip | Ft. Left on Spool

REMARKS	START	STOP	INTVL.
Rig Serv + Bops	12⁰⁰	12¹⁵	¼
Drilling	12¹⁵	7¹⁵	7
Survey	7¹⁵	7³⁰	¼
Drilling	7³⁰	8⁰⁰	½

FIRES ___ B. Hunter DRILLER'S SIGNATURE

TOUR 8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
2534	59	2593	7¾	82	32 / 2031.99	1	18	7" 6"	2 7/8	515.86		428		0

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
	6	8¾	ESSR	OUT	37258	35	60	196	27			1	450	64		Drill		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP No. 1	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP No. 2	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	8.6	8.7	8.8	8.2	PRESSURE	450	450	450	450	PRESSURE	on	Tanks.		
VISCOSITY	65	63	55	70	MODEL D/300 S.P.M.	64	64	64	64	MODEL C/250 S.P.M.				
GEL					LINER SIZE	6½ × 14				LINER SIZE	6½ × 15			

W.L. 8.8 F.C. 2/32 pH. 11.0 DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet ___ Degrees ___

MOTOR HOURS: 1 — 2 — 3 — 4 — 5 — Next Oil Change

ADDITIVES: Soda Ash 200 lb ; Gel 1500 lb ; Canduster 20 sx ; Cal Fiber 5 sx ; Interlok 5 sx

GENERAL: Dumped & cleaned Shale Tank

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record: Size | Make | Serial No. | No. Lines | Trips | Ton Miles | Total Miles | Feet Slip or Cut | At Miles | Date Slip or Cut | Next Slip | Ft. Left on Spool

REMARKS	START	STOP	INTVL.
Rig Serv & Bops	8⁰⁰	8¹⁵	¼
Drilling	8¹⁵	4⁰⁰	7¾

FIRES ___ [illegible] DRILLER'S SIGNATURE

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
2593	52	2645	7¼	82	33 / 2094.71	1	18	7" 6"	2 7/8	515.86		428		10

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
	6	8¾	ESSR	OUT	37258	35	60	248	34¼			1	450	64		Drilling		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP No. 1	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP No. 2	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT	8.3	8.4	8.2	8.1	PRESSURE	450	450	450	450	PRESSURE	on Tank			
VISCOSITY	70	75	88	65	MODEL D/300 S.P.M.	64	64	64	64	MODEL C 250 S.P.M.				
GEL					LINER SIZE	6½ × 14				LINER SIZE	6½	×	15	

W.L. 12.0 F.C. 2/32 pH. 12.0 DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet 2624 Degrees 1¼

MOTOR HOURS: 1 — 2 — 3 — 4 — 5 — Next Oil Change

ADDITIVES: Peltex 200 lbs

GENERAL:

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record: Size | Make | Serial No. | No. Lines | Trips | Ton Miles | Total Miles | Feet Slip or Cut | At Miles | Date Slip or Cut | Next Slip | Ft. Left on Spool

REMARKS	START	STOP	INTVL.
Rig Serv & Bops	4⁰⁰	4¹⁵	¼
Drilling	4¹⁵	8⁰⁰	3¾
Survey	8⁰⁰	8³⁰	½
Drilling	8³⁰	12⁰⁰	3½

FIRES ___ B. Hunter DRILLER'S SIGNATURE

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT # ___ Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd. ___ Rig Savers Chk'd. ___ Kelly Cock Chk'd. ___ Fire Equip. Chk'd. ___

Fuel on Hand 12.01 a.m. ___ gals. Fuel Rec'd Today (add) ___ gals. TOTAL ___ gals. Fuel on Hand 11.59 p.m. (deduct) ___ gals. FUEL USED ___ gals.

CASING REPORT: RAN ___ JTS ___ CSG; TO ___ KB. USED ___ SAX ___ CEM; PLUS ___ % PLUG DOWN ___ A.M. P.M.; CEMENT RETURNS (YES/NO)

RENTAL EQUIPMENT ON HAND ___ TRANSFER # ___

DAYS FROM SPUD: ___ TOTAL COMPANY TIME ___ HRS. TOTAL CONTRACTOR'S TIME ___ HRS.

EQUIPMENT CHANGES ___

Approved by Operator's Representative: [signature]

Approved by Toolpusher: Fred [signature]

Stamp: CONSERVATION ENGINEERS ... DEVELOPMENT [illegible]

CONSERVATION BOARD COPY

COM 47971

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION H.B. ET. AL. Willow LSD 39 SEC. ____ TWP. ____ RGE. ____ W. ____ DATE March 29 1972

DAILY DRILLING LOG

DIRECTIONS TO WELL ____ MAILING POINT ____ SHIPPING POINT ____ MILES MOVED ____ ROAD CONDITIONS ____ DAYS FROM SPUD ____

TOUR MIDNIGHT TO 8 AM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	Drill Collars No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
2490	44	2534	7½	80	32 / 2000	62	18	7" 6"	2⅞	515.86		428		22

Bits No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
6	8¾	1SSK	out	37258	35	60	137	19¾			1	400	64	—	Drill		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP No. 1	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP No. 2	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	8.9	8.9	8.8	8.8	PRESSURE	400	400	450	420	PRESSURE	on	mud		
VISCOSITY	40	43	55	65	MODEL D/300 S.P.M.	64	64	64	64	MODEL E/250 S.P.M.		mixer		
GEL					LINER SIZE	6½	x	14		LINER SIZE	6½	x	15	

W.L. 10.6 F.C. 2/32 pH 11.5 DESILTER: Hours Op: ____ U. Flow: ____ O. Flow: ____

MOTOR HOURS: 1 ____ 2 ____ 3 ____ 4 ____ 5 ____ Next Oil Change ____

SURVEYS: At Feet 2530, Degrees 1½

ADDITIVES: Gel – 4000; Soda Ash – 100; CMC – 200; Peltex 200

GENERAL: Clean Shaker Tank

Weather ____ Temp. ____ Water ____ Bbls.

Drilling Line Record: Size ____ Make ____ Serial No. ____ No. Lines ____ Trips ____ Ton Miles ____ Total Miles ____ Slip Feet or Cut ____ At Miles ____ Date Slip or Cut ____ Next Slip ____ Ft. Left on Spool ____

REMARKS	START	STOP	INTVL.
Rig Serv + Bols	12⁰⁰	12¹⁵	¼
Drilling	12¹⁵	7¹⁵	7
Survey	7¹⁵	7³⁰	¼
Drilling	7³⁰	8⁰⁰	½

FIRES ____

DRILLER'S SIGNATURE: B. Hunter

TOUR 8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	Drill Collars No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
2534	59	2593	7¾	82	32 / 2031	1 / 99	18	7" 6"	2⅞	515.86		428		0

Bits No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
6	8¾	1SSK	out	37258	35	60	196	27			1	450	64		Drill		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP No. 1	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP No. 2	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	8.6	8.7	8.8	8.2	PRESSURE	450	450	450	450	PRESSURE	on	Tanks.		
VISCOSITY	65	63	55	70	MODEL D/300 S.P.M.	64	64	64	64	MODEL E/250 S.P.M.				
GEL					LINER SIZE	6½ x 14				LINER SIZE	6½ x 15			

W.L. 8.8 F.C. 3/32 pH 11.0 DESILTER: Hours Op: ____ U. Flow: ____ O. Flow: ____

MOTOR HOURS: 1 ____ 2 ____ 3 ____ 4 ____ 5 ____ Next Oil Change ____

SURVEYS: At Feet ____ Degrees ____

ADDITIVES: Soda Ash 250 lb; Gel 1500 lb; Caustic 20 sk; Interlok 5 sk; Fibre 5 sk

GENERAL: Dumped & Cleaned Shaker Tank

Weather ____ Temp. ____ Water ____ Bbls.

Drilling Line Record: Size ____ Make ____ Serial No. ____ No. Lines ____ Trips ____ Ton Miles ____ Total Miles ____ Slip Feet or Cut ____ At Miles ____ Date Slip or Cut ____ Next Slip ____ Ft. Left on Spool ____

REMARKS	START	STOP	INTVL.
Rig Ser & Bol's	8⁰⁰	8¹⁵	¼
Drilling	8¹⁵	4⁰⁰	7¾

FIRES ____

DRILLER'S SIGNATURE: [illegible]

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	Drill Collars No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
2593	52	2645	7¼	82	33 / 2094	1 / 71	18	7" 6"	2⅞	515.86		428		10

Bits No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
6	8¾	1SSK	out	37258	35	60	248	34¼			1	450	64		Drilling		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP No. 1	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP No. 2	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT	8.3	8.4	8.2	8.1	PRESSURE	450	450	450	450	PRESSURE	on	Tank		
VISCOSITY	70	75	88	65	MODEL D/300 S.P.M.	64	64	64	64	MODEL E/250 S.P.M.				
GEL					LINER SIZE	6½ x 14				LINER SIZE	6½	x	15	

W.L. 12.0 F.C. 2/32 pH 12.0 DESILTER: Hours Op: ____ U. Flow: ____ O. Flow: ____

MOTOR HOURS: 1 ____ 2 ____ 3 ____ 4 ____ 5 ____ Next Oil Change ____

SURVEYS: At Feet 2624, Degrees 1¼

ADDITIVES: Peltex 200 lbs

GENERAL: ____

Weather ____ Temp. ____ Water ____ Bbls.

Drilling Line Record: Size ____ Make ____ Serial No. ____ No. Lines ____ Trips ____ Ton Miles ____ Total Miles ____ Slip Feet or Cut ____ At Miles ____ Date Slip or Cut ____ Next Slip ____ Ft. Left on Spool ____

REMARKS	START	STOP	INTVL.
Rig Ser & Bol's	4⁰⁰	4¹⁵	¼
Drilling	4¹⁵	8⁰⁰	3¾
Survey	8⁰⁰	8³⁰	½
Drilling	8³⁰	12⁰⁰	3½

FIRES ____

DRILLER'S SIGNATURE: F. Hunter

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING ON BIT ⇌ ____ Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd. ____ Rig Savers Chk'd. ____ Kelly Cock Chk'd. ____ Fire Equip. Chk'd. ____

Fuel		
Fuel on Hand 12.01 a.m.		gals.
Fuel Rec'd Today (add)		gals.
TOTAL		gals.
Fuel on Hand 11.59 p.m. (deduct)		gals.
FUEL USED		gals.

CASING REPORT: RAN ____ JTS ____ CSG ____ TO ____ KB. USED ____ SAX ____ CEM ____ PLUS ____ % PLUG DOWN ____ A.M./P.M. CEMENT RETURNS – (YES/NO) ____

RENTAL EQUIPMENT ON HAND ____ TRANSFER # ____

DAYS FROM SPUD: ____ TOTAL COMPANY TIME ____ HRS. TOTAL CONTRACTOR'S TIME ____ HRS.

EQUIPMENT CHANGES ____

Approved by Operator's Representative: [signature]

Approved by Toolpusher: Fred [signature]

CONSERVATION BOARD COPY

COM 47971

CONSERVATION ENGINEERS DEPARTMENT ... MAR 14 1972 (stamp)

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG

RIG NO. 12 LOCATION H.B. ET. AL Willows A-39 SEC. ___ TWP. ___ RGE. ___ W. ___ DATE MARCH 28 19 72

DIRECTIONS TO WELL ___ MAILING POINT ___ SHIPPING POINT ___ MILES MOVED ___ ROAD CONDITIONS ___ DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
2350	47	2397	6¼	80	18	4 54

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
	18	7" 6"	2 7/8	515.86		1237		16

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	5	9¾	X55R	OUT	57414	35	70	492	52¼			1	350	60	—	TR 1		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.7	8.6	8.4	8.4	No. 1 PRESSURE	350	350	350		No. 2 PRESSURE					1	
VISCOSITY	60	66	50	48	MODEL					MODEL					2	
GEL					S.P.M.	60	60	66		S.P.M.					3	
					LINER SIZE	6½	x	14		LINER SIZE	6½	—	12			
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:						Weather	Water
ADDITIVES: 300 # GEL					GENERAL: Fuel 4'6"										Temp.	Bbls.
300 # DETEX																
300 # SAWDUST																

SURVEYS At Feet	Degrees
2330	¾

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS	TIME START	TIME STOP	TIME INTVL.
Rig SERV + LUBE.	1200	1215	¼
DRILLING	1215	315	3
SURVEY	315	330	¼
DRILLING	330	645	3¼
TRIP Bit	645	800	1¼

FIRES ___ L. Hunter DRILLER'S SIGNATURE

8 AM TO 4 PM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
2397	40	2437	5	82	18	7 5-84

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	18	7"	2 7/8	515.86		428		0

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	6	8¾	XSSR	OUT	37258	10-35	60	40	5			1	1100	60		DRILL		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT		1	8.5	8.6	No. 1 PRESSURE			375	400	No. 2 PRESSURE					1	
VISCOSITY	1/21		60	58	MODEL					MODEL					2	
GEL	11				S.P.M.			60	60	S.P.M.	MUD		120		3	
					LINER SIZE	6½	x	14		LINER SIZE	6½	x	15			
W.L.	F.C. 4/32	pH. 12.0			DESILTER: Hours Op:		U. Flow:		O. Flow:						Weather	Water
ADDITIVES: GEL 250 #					GENERAL:										Temp.	Bbls.
GEL 300 #																
600 # LCM 160 #																

SURVEYS At Feet	Degrees

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS	TIME START	TIME STOP	TIME INTVL.
FINNISH OUT - LAY DOWN	800		
GOT STARTED		900	1
RIG SAR & BOPS	900	915	¼
TRIP IN	915	1045	1½
BREAK CIRC + SPACE OFF STM	1045	1100	¼
DRILLING	1100	400	5

FIRES ___ L. Hunter DRILLER'S SIGNATURE

4 PM TO MIDNIGHT TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
2437	53	2490	6¾	80	31	1 98

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	18	7" 6"	2 7/8	515.86		428		9

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	6	9¾	XSSR	OUT	37258	35	60	93	11¾			1	400	64	—	DRILL		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 o.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.6	8.7	4.8	8.7	No. 1 PRESSURE	1	475	1000	1100	No. 2 PRESSURE	1100	1			1	
VISCOSITY	56	55	59	64	MODEL	A				MODEL		N			2	
GEL					S.P.M.	N	60	60	64	S.P.M.	60				3	
					LINER SIZE	6½	x	14		LINER SIZE	6	E.K.S.	15			
W.L. 43	F.C. 3/32	pH. 11.5			DESILTER: Hours Op:		U. Flow:		O. Flow:						Weather	Water
ADDITIVES: GEL 700 #					GENERAL:										Temp.	Bbls.

SURVEYS At Feet	Degrees
2467	1 1/8

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS	TIME START	TIME STOP	TIME INTVL.
RIG SER + LUBE	400	415	¼
DRILLING	415	745	3½
SURVEY	745	800	¼
DRILLING	800	1030	2½
CLEAN SUCTION TANK	1030	1115	¾
DRILLING	1115	1200	¾

FIRES ___ L. Hunter DRILLER'S SIGNATURE

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril			500	
Pipe Rams			1500	
Blind Rams			1500	
OTCO RING ON BIT #			Boiler Operated: 24 Hrs.	

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT RAN ___ JTS ___ CSG ___ TO ___ KB. USED ___ SAX ___ CEM ___ PLUS ___ % PLUG DOWN ___ A.M. P.M. CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND ___ TRANSFER ___

DAYS FROM SPUD: ___

EQUIPMENT CHANGES ___

TOTAL COMPANY TIME ___ HRS. TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative V. Sullivan

Approved by Toolpusher Fred Lukens

CONSERVATION BOARD COPY

COM 47970

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION N. E. Ft. St. Willow A-39 SP. SEC. TWP. RGE. W. DATE March 27 19 72

DAILY DRILLING LOG
DIRECTIONS TO WELL
MAILING POINT
SHIPPING POINT
MILES MOVED
ROAD CONDITIONS
DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
2129	80	2209	7½	78	26	37

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub.	C.B. Ft	Ft. up on Kelly
	18	7"	2⅞	515.86		1237		21

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
5	8¾	YSSR	Open	398 14	35	60	304	30¾				1	350	60	—	Drilling		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT	9.1	9.2	8.4	8.3	No. 1 PRESSURE	300	330	350	350	No. 2 PRESSURE	Run on Mud				1	
VISCOSITY	70	75	54	67	MODEL S.P.M.	60	60	60	60	MODEL S.P.M.	TO MK				2	
GEL					LINER SIZE	6½	x	14		LINER SIZE	6½	x	15		3	

W.L. 40.5 F.C. 2½ pH. 12-0 DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:
180 Salt Gel
250 Pentex

SURVEYS At Feet	Degrees
2170	1¼°

Weather: Temp.: Water: Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut (Feet)	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
2209	69	2278	7½	78	27	1

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub.	C.B. Ft.	Ft. up on Kelly
	18	7"	2⅞	515.86				10.27

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
5	8¾	YSSR	Out	208 14	25	60	273	25¾				1	350	60				

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.6	8.7	8.7	8.6	No. 1 PRESSURE	350	350	400	400	No. 2 PRESSURE					1	
VISCOSITY	65	68	70	70	MODEL S.P.M.	60	60	60	60	MODEL S.P.M.	Hyd. Roll.				2	
GEL					LINER SIZE	6½ x 14				LINER SIZE	6½ x 15				3	

W.L. 40.0 F.C. 4/32 pH. 12. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:
6 Lignite 600 lbs 200 Bar 100
Caust 200 Starch 100 lbs 6 CMC 50 Cal Fiber 50

SURVEYS At Feet	Degrees
2259	1°

Weather: Temp.: Water: Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut (Feet)	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
2278	72	2350	7¾	80	29	1

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub.	C.B. Ft.	Ft. up on Kelly
	18	7"	2⅞	515.86		1237		Down

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
5	8¾	YSSR	Out	208 14	35	60	345	46				1	400	64	—	Drilling		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.6	8.6	8.6	8.7	No. 1 PRESSURE	400	400	400	400	No. 2 PRESSURE	Run on Mud				1	
VISCOSITY	60	60	62	65	MODEL S.P.M.	64	64	64	64	MODEL S.P.M.	Hyd. Roll				2	
GEL					LINER SIZE	6½	x	14		LINER SIZE	6½	x	15		3	

W.L. 58.0 F.C. 4/32 pH. 12 DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS At Feet	Degrees

Weather: Temp.: Water: Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut (Feet)	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Sect. Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING ON BIT #: Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd. | Rig Savers Chk'd. | Kelly Cock Chk'd. | Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT: RAN JTS CSG TO KB. USED SAX CEM PLUS % PLUG DOWN A.M. P.M. CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND — TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS. | TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher

CONSERVATION BOARD COPY

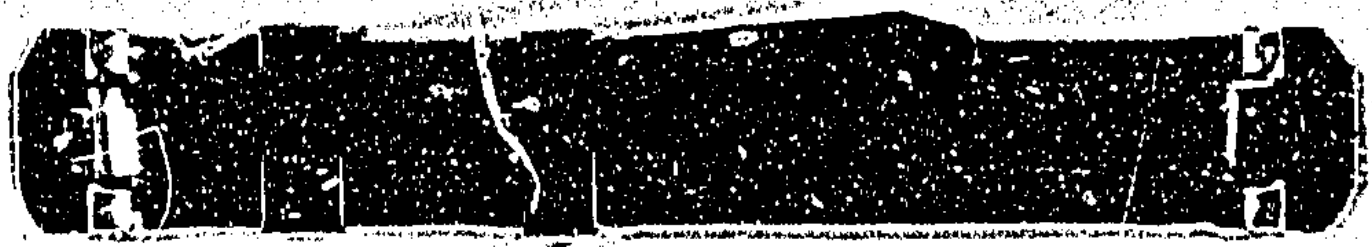
COM 47969

REMARKS

TIME START	TIME STOP	INTVL
1200	1215	¼
1215	345	3½
345	400	¼
400	800	4
800	815	¼
815	130	5¼
130	145	¼
145	400	2¼
400	415	¼
415	1200	7¾

FIRES — DRILLER'S SIGNATURE

FIRES — DRILLER'S SIGNATURE



March 16 missing

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION HB WILLOW A39 ETAL LSD. SEC. TWP. RGE. W. DATE MARCH 25 1972

DAILY DRILLING LOG

DIRECTIONS TO WELL ____ MAILING POINT ____ SHIPPING POINT ____ MILES MOVED ____ ROAD CONDITIONS ____ DAYS FROM SPUD ____

TOUR MIDNIGHT TO 8 AM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
2017															

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2 Feul 5 7"	
GEL						LINER SIZE						LINER SIZE					3 Feul 5 7"	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: Gel 500# GENERAL:
Extra Lock 15 Sax Sawdust 50 Sax
Silica 4 Sax

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
2017															

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
T.																		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: 40 Sax Sawdust GENERAL:
2000# Gel 5 Cubic Fiber
50# Caustic 2 Interlok

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
2017															

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
T.																		
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: Gel 500# GENERAL:
Caust 40# Interlok 5 Sax
Sawdust 50 Sax Caustic 50#

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

REMARKS	TIME START	TIME STOP	INTVL.
Run in w/ bit	12 00	12 45	3/4
Cond mud & circ	12 45	1 15	1 1/2
Drill out Plug Cont mud @ 1970	1 15	3 00	3/4
Trip To run open end	3 00	5 00	2
Mix last circ mat Build Volume	5 00		
Wait on Water	6 00		3
FIRES ____ DRILLER'S SIGNATURE G. T. Pinno			
Rig Serv & S.D.C.	8 00	9 15	1 1/4
Wait on Water & Rig To Run Casing	8 15	9 00	3/4
Pump 50 Bbls Mud & Run Plug #10	9 00	9 30	1/2
Pull 5 Stds & W.O.C Mix Mud	9 30	11 00	1 1/2
Fill Hole & Circ. @ 1700'	11 00	12 00	1
Run in To 2004'	12 00	12 15	1/4
Circ. Build volume & Cond. Mud	12 15	1 30	1 1/4
Tag Bottom Last Circ. W.O. orders	1 30	3 00	1 1/2
Pull 8 Stds & Pump 20 Bbls Diesel	3 00	3 30	1/2
Run in To 2004' & Run Plug #11	3 30	4 00	1/2
FIRES ____ DRILLER'S SIGNATURE			
Rig Serv & Soap	4 00	4 15	1/4
Pull 5 Stds W.O.C. - Mix Mud	4 15		
Pump Mud Down Hole (No Returns)		7 00	2 3/4
Run in 5 Stds Tag Stm. Bulge @	7 00		
Volume - Mix Mud Put Empty			
Shut Out Bags Down Pull 25 Cut Up		9 00	2
Pull Out To 1960 Run Plug #12	9 00	9 30	1/2
Pull 5 Stds W.O.C. Mix Mud - L.C.M.	9 30	11 30	2
Run in To Feel Cap Plug #12	11 30	12 00	1/2
FIRES ____ DRILLER'S SIGNATURE			

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

Crown-o-matic Chk'd. ____
Rig Savers Chk'd. ____
Kelly Cock Chk'd. ____
Fire Equip. Chk'd. ____

TOTCO RING ON BIT @ ____ Boiler Operated 24 Hrs.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT RAN ____ JTS ____ CSG ____ TO ____ KB. ____ USED ____ SAX ____ CEM ____ PLUS ____ % PLUG DOWN ____ A.M. P.M. CEMENT RETURNS: (YES/NO)

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD 1

EQUIPMENT CHANGES

TOTAL COMPANY TIME ____ HRS.

TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative ____

Approved by Toolpusher Fred Johns

CONSERVATION BOARD COPY

COM 47967

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION H.B. ET AL. WILLOW A-39 — LSD. — SEC. — TWP. — RGE. — W. — DATE March 24 — 22

DIRECTIONS TO WELL — MAILING POINT — SHIPPING POINT — MILES MOVED — ROAD CONDITIONS — DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
2017															

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES: 2 Jet 2 sax					GENERAL: Fuel 3 sx												5	
Spud 2 F-20					18 sx Gel Sugar												Weather	Water
Gel 500 lb					32 sx Cement												Temp.	Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or	Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS: At Feet / Degrees

FIRES

J. T. Moore
DRILLER'S SIGNATURE

8 AM TO 4 PM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES: 43 sx Gel 50 Drist 10					GENERAL: USED 140 sx Cement												5	
					40 sx Cal Seal												Weather	Water
																	Temp.	Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or	Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS: At Feet / Degrees

FIRES

DRILLER'S SIGNATURE

4 PM TO MIDNIGHT TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
2017															

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES: Conduct 48 sx GENERAL: Bi Carb 100 #																	5	
Intibach 5 sx Gel 700 #																	Weather	Water
Lime 2 sx Caustic 50 #																	Temp.	Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or	Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS: At Feet / Degrees

FIRES

J. T. Moore
DRILLER'S SIGNATURE

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.	✓	1 MIN	1500	
Blind Rams.	✓	1 min	1500	
		1 min	1500	

TOTCO RING ON BIT # — Operated 24 Hrs.

Crown-o-matic Chk'd. — Rig Savers Chk'd. — Kelly Cock Chk'd. — Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN — JTS — CSG — TO — KB. USED — SAX — CEM — PLUS — % — PLUG DOWN — A.M. P.M. — CEMENT RETURNS (YES/NO)

RENTAL EQUIPMENT ON HAND — TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS. — TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative: J E Jr.

Approved by Toolpusher: Al Nam

CONSERVATION BOARD COPY

REMARKS

REMARKS	START	STOP	INTVL
Hoist Bit run in w/ open end	12 00	2 30	2½
Cut up 50 sawdust bags Pump	2 30	4 15	1¾
come down drill pipe.			
Pull 3 stds off Btm Rig to Btm	4 15		
Pull 2 stds off Btm Rig to cmnt		4 45	½
Mix 50 sax cement displace plug	4 45	5 15	½
W.O.C Run in Feel Plug @ 2016 Pull 4 stds	5 15	7 00	1¾
Pump down 50 sawdust bags	7 00		
Rig to cement		8 00	1
FIRES J. T. Moore DRILLER'S SIGNATURE			
Run Plug #6	8 00	8 30	½
Pull 4 stds W.O.C. (Rig Serv + Bolts)	8 30	9 00	½
Fill Hole @ 1760' d Circ	9 00	10 00	1
In To Feel Plug Tag Bottom (No Plug) (Lost Circ.)	10 00	10 30	1½
Run Plug #7 (No Plug)	10 30	11 00	½
Pull 4 stds. W.O.C. WAIT ON WATER	11 00		
Pump 50 Cu Yd Sax + Displace		3 00	4
Run Plug #8 Pull 4 stds	3 00	3 30	½
W.O.C. + WAIT ON WATER	3 30	4 00	½
FIRES L. Hunt DRILLER'S SIGNATURE			
Rig Serv + U Bolts	4 00	4 15	¼
W.O.C. + Mix + Run + L.C.M.	4 15	6 15	2
Run in Feel For Plug #8 (No Plug)	6 15	6 45	½
Run Plug #9 + Pull 4 stds	6 45	7 15	½
W.O.C + Mix L.C.M.	7 15	9 15	2
Run in Feel plug #9 @ 1930	9 15	9 30	¼
Build volume condmud	9 30	10 45	1¼
Trip to pick up bit	10 45	12 00	1¼
FIRES J. T. Moore DRILLER'S SIGNATURE			

COM 47966

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION HB. et al Willow A39 — LSD. — SEC. — TWP. — RGE. — W. — DATE March 23 1972

DIRECTIONS TO WELL — MAILING POINT — SHIPPING POINT — MILES MOVED — ROAD CONDITIONS — DAYS FROM SPUD

TOUR MIDNIGHT TO 8 A.M. TOUR 8 A.M. TO 4 P.M. TOUR 4 P.M. TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1987	30	2017	2½	75	14	75.56

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	STAB	Ft. up on Kelly
18	7	2⅞	515.86		427	8.10	27.68

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
	5	8¾	155R	OPEN	38814	35	60	112	13			1	500	64				

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT	85	85			No. 1 PRESSURE	500	500			No. 2 PRESSURE	MUD Roll				1	
VISCOSITY	45	111			MODEL	64	64			MODEL					2 Full	4'6"
GEL					300 S.P.M.					250 S.P.M.					3	
					LINER SIZE	6½ x 14				LINER SIZE	6½ x 15				4	
															5	

W.L. 92 F.C. 21 pH. 11.0 DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: Gel 7900 # GENERAL:

Lindsay 190 Sax Waterblock 135 Sax

Lindsay 125 Sax Waterblock 200 Sax

SURVEYS: At Feet / Degrees

Weather: Temp.: Water: Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
2017						

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL					MODEL					2	
GEL					S.P.M.					S.P.M.					3	
					LINER SIZE					LINER SIZE					4	
															5	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: 35 00 # Gel GENERAL: USED 100 SAX CEMENT

4 SAX SAWDUST 50 SAX CAL-SEAL

50 SAX CAUSTIC

SURVEYS: At Feet / Degrees

Weather: Temp.: Water: Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL					MODEL					2	
GEL					S.P.M.					S.P.M.					3	
					LINER SIZE					LINER SIZE					4	
															5	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: 40 Sax Sawdust GENERAL: Used 150 Sax Cement

8 Sax Gel 60 Sax Cal-Seal

100 Sax Cement 100 Sax Gel

SURVEYS: At Feet / Degrees

Weather: Temp.: Water: Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING ON BIT # — Bottom Operated: 24 Hrs.

Crown-o-matic Chk'd.		Fuel on Hand 12.01 a.m.	gals.
Rig Savers Chk'd.		Fuel Rec'd Today (add)	gals.
Kelly Cock Chk'd.		TOTAL	gals.
Fire Equip. Chk'd.		Fuel on Hand 11.59 p.m. (deduct)	gals.
		FUEL USED	gals.

CASING REPORT — RAN JTS CSG — TO KB. USED SAX CEM — PLUS % PLUG DOWN A.M. P.M. — CEMENT RETURNS (YES/NO)

RENTAL EQUIPMENT ON HAND — TRANSFER # — DAYS FROM SPUD — EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS. — TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative J E Jr

Approved by Toolpusher Al Nowa

REMARKS	TIME START	TIME STOP	INTVL.
Drlg	12 00	2 15	2¼
R.S. Bop ✓	2 15	2 30	¼
Drlg	2 30	2 45	¼
Mix L.C.M.	2 45	7 15	4½
Hoist to swap plug	7 15	8 00	¾
FIRES — DRILLER'S SIGNATURE			
Finish out	8 00	8 45	¾
Rig Serv + ✓ B.O.P.	8 45	9 00	¼
Run in open end + pick up 17 Singles	9 00	10 00	1
Run Cement Plug #4 + Displace Pipe	10 00	10 45	¾
Roll 4 Sax + wait on Water	10 45	11 45	1
Run Cement Plugs #2 + #3	11 45	2 00	2¼
Pumped 20 Cut wl Sawdust Sax			
Down Drill Pipe @ 2004' + Displace			
Pipe @ 20 Bbls Water	2 00	4 00	2
FIRES — DRILLER'S SIGNATURE			
Pull up To 1910' + Run Plug #4	4 00	5 00	1
Rig Serv + ✓ B.O.P.	5 00	5 15	¼
W. O. C & wait on Water	5 15	6 15	1
Run in Cast Plug #4 @ 1864'	6 15	6 45	½
Fill Hole Circ & Cond. Mud	6 45	8 45	2
Pull open end Run in w/bit	8 45	11 15	2½
Drill out Plug lost mud @ 1800	11 15	11 30	¼
Run in 4 stds to Tag Btm	11 36	11 45	¼
Pull out w/bit	11 45	12 00	¼
FIRES — DRILLER'S SIGNATURE			

CONSERVATION BOARD COPY

COM 47965

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION HB 2-1 al Willow A39 — LSD. — SEC. — TWP. — RGE. — W. — DATE March 22 — 1972

DIRECTIONS TO WELL — MAILING POINT — SHIPPING POINT — MILES MOVED — ROAD CONDITIONS — DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands 21	Singles 1	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub.	STAB	Ft. up on Kelly
1834	60	1894	7½	76	1350.39			18	6"	2⅞	515.86		4.27	8.10	25.62

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	4	8¾	155R	open	20149	35	60	720	95½			1	500	64				
2																		
3																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.1	8.1	8.8	8.8	No. 1 PRES. SURE	500	500	500	500	No. 2 PRES. SURE	mud pull				1	
VISCOSITY	48	50	48	48	MODEL S.P.M.	64	64	64	64	MODEL S.P.M.					2 Yard 3	
GEL					LINER SIZE	6½ x 14				LINER SIZE	6½ x 15				3	

W.L. 10.2 F.C. 2/32 pH. 11.5 DESILTER: Hours Opr. U. Flow: O. Flow:

ADDITIVES: GENERAL: 6 M C-50 Used

SURVEYS: At Feet 1885 — Degrees 1½

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands 22	Singles 25	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft. STAB	Ft. up on Kelly
1894	33	1927	5	75	1382.25			18	6" 7"	2⅞	515.86		427	8.10	24

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	4	8¾	155R	open	20149	35	60	121	97½			1	500	64		1	1	I
2	5	Forged	Rock	open	3917	35	60	22	3			2	500	64		1	1	I
3																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.4	6		8.6	No. 1 PRES. SURE	500	500			No. 2 PRES. SURE		MUD PULL			1	
VISCOSITY	49	Rig		52	MODEL S.P.M.	D 64	64			MODEL S.P.M.					2	
GEL		up			LINER SIZE	300 6½ x 14				LINER SIZE	250 6½ x 15				3	

W.L. 11.6 F.C. pH. 10.5 DESILTER: Hours Opr. U. Flow: O. Flow:

ADDITIVES: GENERAL: 5 ¾ out @ 1905

SURVEYS: At Feet — Degrees

Weather (mist) — Temp. 35 + — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands 23	Singles 22	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub.	C.B. Ft. STAB	Ft. up on Kelly
1927	60	1987	7½	75	1444.22			18	6" 7"	7⅞	515.86		427	8.10	26.35

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	5	8¾	155R	open	38814	35	60	82	10¼			1	550	64				
2																		
3																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.6	8.8	8.7	8.5	No. 1 PRES. SURE	550	550	450	450	No. 2 PRES. SURE	mud pull				1	
VISCOSITY	51	48	40	43	MODEL S.P.M.	D 64	64	64	64	MODEL S.P.M.					2	
GEL					LINER SIZE	300 6½ x 14				LINER SIZE	250 6½ x 15				3	

W.L. 9.0 F.C. 2/ pH. 10.5 DESILTER: Hours Opr. U. Flow: O. Flow:

ADDITIVES: Lost 600 bbls GENERAL: Dump & clean tanks

Lost Rec 200 ±

SURVEYS: At Feet 1950 — Degrees 1¼

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
B.O.P.				
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING OF BIT # — Hrs. — Bailer Operation

Crown-o-matic Chk'd. — Rig Savers Chk'd. — Kelly Cock Chk'd. — Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m. — gals.
Fuel Rec'd Today (add) — gals.
TOTAL — gals.
Fuel on Hand 11.59 p.m. (deduct) — gals.
FUEL USED — gals.

CASING REPORT — RAN — JTS — CSG — TO — KB. USED — SAX — CEM — PLUS — % — PLUG DOWN — A.M. P.M. — CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND — TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS. — TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative: J E Fm

Approved by Toolpusher: Al Adam

REMARKS

TIME START	TIME STOP	INTVL.	REMARKS
12 00	2 15	2¼	Drlg
2 15	2 30	¼	R.S. Bop's Bop Drill
2 30	6 45	4¼	Drlg
6 45	7 00	¼	~~Survey~~
7 00	8 00	1	Drlg

FIRES — D. I. Moore — DRILLER'S SIGNATURE

8 00	10 00	2	Drilling
10 00	11 30	1½	TRIP out
11 30	11 45	¼	Service Rig & Blind Rams
11 45	1 00	1¼	TRIP in
1 00	4 00	3	Drilling

FIRES — D. I. Moore — DRILLER'S SIGNATURE

4 00	4 15	¼	Rig Serv + Bobs
4 15	7 45	3½	Drilling
7 45	8 00	¼	Survey
8 00	12 00	4	Drilling

FIRES — D. I. Moore — DRILLER'S SIGNATURE

CONSERVATION BOARD COPY

COM 47964

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION HB et al Willow A39 — LSD. ___ SEC. ___ TWP. ___ RGE. ___ W. ___ — DATE MARCH 21 19 70

DIRECTIONS TO WELL ___ — MAILING POINT ___ — SHIPPING POINT ___ — MILES MOVED ___ — ROAD CONDITIONS ___ — DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 A.M.

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft. Stds.	Ft. up on Kelly
1660	45	1705	5 1/4	73	1163	14		18	6	2 7/8	515.86		427	8.10	27.37

Bit No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
4	3 3/4	X55R	open	30149	30	60	531	73			1	450	64				

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT	88	88	8.8	89	No. 1 PRESSURE	450	450	450		No. 2 PRESSURE					1	
VISCOSITY	45	43	43	45	MODEL					MODEL					2 Yard 1 1/2	11
GEL					S.P.M.	64	64	64		S.P.M.					3 Yard 1 1/2	
					LINER SIZE	6 1/2 x 14				LINER SIZE	6 1/2 x 15					

W.L. 9.6 F.C. 21 pH. 12 — DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: Gel 3800 — GENERAL: Lost after 25 BBLS mud

Sawdust 65 SAX

Extracol 10 SAX

SURVEYS: At Feet 1665 — Degrees 1 1/2

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 8 A.M. TO 4 P.M.

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft. Stds.	Ft. up on Kelly
1705	60	1765	7 1/2	73	1226	24		18	6"	2 7/8	515.86		427	8.10	30

Bit No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
4	3 3/4	X55R	open	30149	30-35	60	591	90 1/2			1	450	64				

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.7	8.5	8.5	8.7	No. 1 PRESSURE	450	450	450	480	No. 2 PRESSURE					1	
VISCOSITY	41	44	46	51	MODEL	D				MODEL					2	
GEL					S.P.M.	64	64	64	64	S.P.M.					3	
					LINER SIZE	6 1/2	X	14		LINER SIZE	6 1/2	X	15			

W.L. 18.0 F.C. 24 pH. 11.5 — DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: Gel 140 — GENERAL: Lost 15 BBLS M.D

Extra Gel

10 SAX Sawdust 2 SAX Extra

SURVEYS: At Feet 1730 — Degrees 1 3/4

Weather M. L. D Temp. 30 — Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 4 P.M. TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft. Stds.	Ft. up on Kelly
1765	69	1834	7 1/2	73	1296	49		18	7" 6"	2 7/8	515.86		427	8.10	21.72

Bit No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
4	3 3/4	X55R	open	30149	35	60	660	98			1	450	64				

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	86	87	87	8.7	No. 1 PRESSURE	420	450	450	450	No. 2 PRESSURE					1	
VISCOSITY	52	48	118	51	MODEL	D				MODEL					2	
GEL					S.P.M.	64	64	64	64	S.P.M.					3	
					LINER SIZE	6 1/2	X	14		LINER SIZE	6 1/2	Y	15			

W.L. 9.4 F.C. 26 pH. 11.6 — DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: Gel 1000 # — GENERAL: ___

Sawdust 10 SAX

Extracol 10 SAX

SURVEYS: At Feet 1795 — Degrees 1 3/4

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure
Hydril			
Pipe Rams.			1500
Blind Rams.			1500

Packing & Seal Inspected Date ___

TOTCO RING ON BIT # ___ Boiler Operated: ___ Hrs.

Crown-o-matic Chk'd. ___ Rig Savers Chk'd. ___ Kelly Cock Chk'd. ___ Fire Equip. Chk'd. ___

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN ___ JTS ___ CSG

TO ___ K.B. ___ USED ___ SAX ___ CEM ___

PLUS ___ % ___ PLUG DOWN ___ A.M. P.M.

CEMENT RETURNS - (YES/NO)

REMARKS

	TIME START	TIME STOP	INTVL.
Dela	12 00	1 00	1
RS Bop ✓	1 00	1 15	1/4
Lunch	1 15	1 30	1/4
Drlg	1 30	4 30	3
Mix Lost circ. mat.	4 30	6 45	2 1/4
Drlg	6 45	8 00	1 1/4
FIRES ___ J. J. Moore DRILLER'S SIGNATURE			
Rig Serv + Lube.	8 00	8 15	1/4
Drilling	8 15	11 30	3 1/4
Survey	11 30	11 45	1/4
Drilling	11 45	4 00	4 1/4
FIRES ___ J. Hunt DRILLER'S SIGNATURE			
Rig Serv + Lube.	4 00	4 15	1/4
Drilling	4 15	7 45	3 1/2
Survey	7 45	8 00	1/4
Drlg	8 00	12 00	4
FIRES ___ J. J. Moore DRILLER'S SIGNATURE			

RENTAL EQUIPMENT ON HAND — TRANSFER #

EQUIPMENT CHANGES

DAYS FROM SPUD ___

TOTAL COMPANY TIME ___ HRS.

TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative JE Bn

Approved by Toolpusher Al Nour

CONSERVATION BOARD COPY

COM 47963

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION H.B. et al Willow B 39 — LSD. — SEC. — TWP. — RGE. — W. — DATE March 20 — 1972

DIRECTIONS TO WELL — MAILING POINT — SHIPPING POINT — MILES MOVED — ROAD CONDITIONS — DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1524	34	1558	7½	72	1006.81	

DRILL COLLARS: No. 18 — O.D. 7 — I.D. 2¼ — Length 575.86 — Air Wt. — Sub. — Cu. Ft. 5 7/8 — Ft. up on Kelly 18.04

Bit No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
4	7⅞	J55R	open	30149	10-8	75-60	34	5¾			1	350	65				

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.5	8.5	8.5	8.5	No. 1	PRESSURE	350	350	300	300	No. 2	PRESSURE					1	11
VISCOSITY	80	65	56	48	MODEL	S.P.M.	66	66	66	66	MODEL	S.P.M.					2	40 hrs
GEL						LINER SIZE	6½ x 14					LINER SIZE					3	

W.L. — F.C. — pH. — DESILTER: Hours Op: — U. Flow: — O. Flow:

ADDITIVES: P. Thol 250# — CMC 100#

GENERAL:

SURVEYS: At Feet 1540 — Degrees 1¾

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut: Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1558	42	1600	7½	72	1038.56	

DRILL COLLARS: No. 18 — O.D. 7" 6" — I.D. 2 7/8 — Length 515.86 — Air Wt. — Sub. 4.27 — Cu. Ft. Stds. 9.10 — Ft. up on Kelly 7.79

Bit No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
4	7⅞	J55R	open	30149	4-20	70-	42	6¾			1	450	64	TORQUING			

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.5	8.7	8.7	8.7	No. 1	PRESSURE	400	400	450	450	No. 2	PRESSURE	Lines to Tanks				1	
VISCOSITY	87	70	61	57	MODEL	S.P.M.	64	64	64	64	MODEL	S.P.M.					2	
GEL					D 500	LINER SIZE	6½	✓	14		E 350	LINER SIZE	6½	✓	15		3	

W.L. 9.6 — F.C. — pH. 12.0 — DESILTER: Hours Op: — U. Flow: — O. Flow:

ADDITIVES: 8500 Lbs Lo Vis — 150 CMC — 100 Soda Ash — 500 Mica

GENERAL:

SURVEYS: At Feet 1575 — Degrees 1½

Weather Mild — Temp. 30 + — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut: Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1600	60	1660	~~Hours~~ 14	72	1101.45	

DRILL COLLARS: No. 18 — O.D. 7" 6" — I.D. 2 7/8 — Length 515.86 — Air Wt. — Sub. 4.27 — Cu. Ft. Stds. 8.10 — Ft. up on Kelly 10.68

Bit No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
4	7⅞	J55R	open	30149	90-	60-	486	67¼			1	450	64				

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.7	8.7	8.7	8.8	No. 1	PRESSURE	450	450	450	450	No. 2	PRESSURE	Lines to Tanks				1	
VISCOSITY	41	40	41	45	MODEL	S.P.M.	64	64	64	64	MODEL	S.P.M.					2	
GEL					D 500	LINER SIZE	6½	x	14		E 350	LINER SIZE	6½	✓	15		3	

W.L. 9.8 — F.C. 3/32 — pH. 12 — DESILTER: Hours Op: — U. Flow: — O. Flow:

ADDITIVES: KCL 1600#

GENERAL:

SURVEYS: At Feet 1605 — Degrees 1¼ — At Feet 1635 — Degrees 1¾

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut: Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

	TIME START	TIME STOP	INTVL.
Dale	12⁰⁰	4⁰⁰	4
RS Rep / Service rig	4⁰⁰	4¹⁵	¼
Survey	4¹⁵	4³⁰	¼
Drlg	4³⁰	8⁰⁰	3½
FIRES — DRILLER'S SIGNATURE			
Rig Serv + Chg. B.	8⁰⁰	8¹⁵	¼
Drilling	8¹⁵	11⁴⁵	3½
Survey	11⁴⁵	12⁰⁰	¼
Drilling	12⁰⁰	4⁰⁰	4
FIRES — DRILLER'S SIGNATURE			
Drilling	4⁰⁰	5⁰⁰	1
Rig Serv + Chg. B.	5⁰⁰	5¹⁵	¼
Survey	5¹⁵	5³⁰	¼
Drilling	5³⁰	8⁴⁵	3¼
Survey	8⁴⁵	9⁰⁰	¼
Drlg	9⁰⁰	12⁰⁰	3
FIRES — DRILLER'S SIGNATURE			

B.O.P.	Tested	Elapsed Time	Packing & Seal Inspected Date
Hydril			
Pipe Ram			
Blind Ram			

TOTCO RING OR BIT #

Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd. — Rig Savers Chk'd. — Kelly Cock Chk'd. — Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN — JTS — CSG — TO — KB. USED — SAX — CEM — PLUS — % — PLUG DOWN — A.M. P.M. — CEMENT RETURNS (YES/NO)

RENTAL EQUIPMENT ON HAND — TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS. — TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative JE Fr

Approved by Toolpusher

CONSERVATION BOARD COPY

COM 47962

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION HB ET AL Willow A39 — LSD. — SEC. — TWP. — RGE. — W. — DATE MARCH 19 1972

DIRECTIONS TO WELL — MAILING POINT — SHIPPING POINT — MILES MOVED — ROAD CONDITIONS — DAYS FROM SPUD

TOUR MIDNIGHT TO 8 A.M.

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub Wt.	C.B. Ft.	Ft. up on Kelly
	18	7	2 7/8	515.86		4.27	8.10	

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1:	
VISCOSITY					MODEL	S.P.M.					MODE	S.P.M.					2: 1/2 Jet 3 4 11	
GEL						LINER SIZE						LINER SIZE					3: 1/2 Jet 3 4 11	

W.L. — F.C. — pH. — DESILTER: Hours Op: — U. Flow: — O. Flow:

SURVEYS: At Feet / Degrees — 1-540 — 4 — 5

ADDITIVES: 17 FL = 1500 Lim 2.50 — GENERAL: Saw Dust 1/2 — Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES — DRILLER'S SIGNATURE: John T. Mann

TOUR 8 A.M. TO 4 P.M.

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
15 22						

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S							Plug # 3 50 Sax + 2% Cal Seal											

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. — F.C. — pH. — DESILTER: Hours Op: — U. Flow: — O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: 200 # Gyp Cal 6 — Tag Plug #2 @ 826' — Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES — DRILLER'S SIGNATURE

TOUR 4 P.M. TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1522	2	1524	1/2	72	975	38

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	18	7"	2 7/8	515.86		4.27	8.10	20.61

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	4	9 3/4	XSR	OPEN	30149	10	75	350	45 1/2									
I																		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. — F.C. — pH. — DESILTER: Hours Op: — U. Flow: — O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: 200 # Gyp Cal 6 — 30 # Gel Tex — GENERAL: — Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES — DRILLER'S SIGNATURE: John T. Mann

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seat Inspected Date
Hydril	✓	1 min	1500	37
Pipe Rams	✓	1 min	1500	37
Blind Rams	✓	1 min	1500	37

TOTCO RING ON BIT # — Boiler Operated: — hrs.

Crown-o-matic Chk'd. — Rig Savers Chk'd. — Kelly Cock Chk'd. — Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN — JTS — CSG — TO — KB. USED — SAX — CEM — PLUS — % — PLUG DOWN — A.M. P.M. — CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND — TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS. — TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative: [signature]

Approved by Toolpusher: Al Brown

REMARKS	TIME START	TIME STOP	INTVL.
Hoist open end	12 00	12 30	1/2
W.O.C.	12 30	7 30	7
Run in w/bit & drill pipe	7 30	8 00	1/2
Drlg out Cement Plug #2			
826' — 846'	8 00	9 00	1
Circ + By Pass Cement Out Mud	9 00	10 15	1 1/4
Trip out Bit	10 15	10 45	1/2
Run in open end	10 45	11 15	1/2
Rig To + Run Cement Plug #3	11 15	12 00	3/4
Pull 5 Stands	12 00	12 15	1/4
Close Hydril + Squeeze 4 Bbls W Co Co	12 15	1 15	1
W. O. C. (Rig Serv)	1 15	4 00	2 3/4
FIRES — DRILLER'S SIGNATURE: L. Hunter			
W. O. C. Rig Serv + Lab's.	4 00	5 00	1
Trip out + Run W (W) Bit	5 00	6 00	1
Felt Plug #3 @ 800' + Circ	6 00	6 30	1/2
Drill out Cement	6 30	7 00	1/2
Circ + Cond. Mud	7 00	8 00	1
Trip out Drill Pipe	8 00	8 45	3/4
W Blind Rams Change Rubbers on Stab.	8 45	9 15	1/2
Run in w/Bit # 4 Break circ @ 1186 & 350'	9 15	11 30	2 1/4
Drlg	11 30	12 00	1/2
FIRES — DRILLER'S SIGNATURE: John T. Mann			

CONSERVATION BOARD COPY

COM 47961

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION E B ET AL Willow #39 — LSD. — SEC. — TWP. — RGE. — W. — DATE March 18 19 72

DIRECTIONS TO WELL — MAILING POINT — SHIPPING POINT — MILES MOVED — ROAD CONDITIONS — DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1470	28	1498	5 3/4	70		

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	18	7" 6"	2 7/8	515.86		427	8.10	

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	4	7 7/8	455A	OUT	30149	10	60	32	5 1/2			1	340	65				
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	9.5	9.5	9.5	9.5
VISCOSITY	60	65	70	68
GEL				

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1	PRES-SURE		300	250	
MODEL P 300	S.P.M.		65	65	
	LINER SIZE	6 1/2	x14		
No. 2	PRES-SURE				
MODEL 9 250	S.P.M.				
	LINER SIZE	6 1/2	x 15		

MOTOR HOURS	Next Oil Change
1	
2	
3	

W.L. — F.C. — pH. — DESILTER: Hours Op: — U. Flow: — O. Flow:

ADDITIVES: GENERAL: DEL 25.00 ea / Lime 5.00

SURVEYS	At Feet	Degrees
	1480	1 1/2

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1498	24	1522	4 1/2	72	15	1

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	18	7" 6"	2 7/8	515.96		427	9.10	22

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	4	7 7/8	X55R	OUT	30149	10	75	24	4 1/2			1	300	64		90		
T.																		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	9.5	9.5		
VISCOSITY				
GEL				

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1	PRES-SURE	300			
MODEL P 300	S.P.M.	64			
	LINER SIZE	6 1/2	x 14		
No. 2	PRES-SURE				
MODEL 9 250	S.P.M.				
	LINER SIZE	6 1/2	x 15		

MOTOR HOURS	Next Oil Change
1	
2	
3	

W.L. — F.C. — pH. — DESILTER: Hours Op: — U. Flow: — O. Flow:

ADDITIVES: GENERAL:

SURVEYS	At Feet	Degrees
	1513	1 1/2 0

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
@ 1522						

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1			Rock	Plug @ 835				Cement + 20% CaCl										
T.			Trip Nose					No Jets Left										
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT				
VISCOSITY		Left For		
GEL				

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1	PRES-SURE				
MODEL Plug #1	S.P.M.			0	
	LINER SIZE				
No. 2	PRES-SURE				
MODEL	S.P.M.				
	LINER SIZE				

MOTOR HOURS	Next Oil Change
1	
2	
3	

W.L. — F.C. — pH. — DESILTER: Hours Op: — U. Flow: — O. Flow:

ADDITIVES: GENERAL: Plug #2 @ 835' open end

Plug #1 @ 63' open end

SURVEYS	At Feet	Degrees
	No Rec'd	

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril	✓			
Pipe Rams.	✓	1 MIN	1500	
Blind Rams.	✓	1 MIN	1500	

TOTCO RING ON BIT # — Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd.		Fuel on Hand 12.01 a.m.	gals.
Rig Savers Chk'd.		Fuel Rec'd Today (add)	gals.
Kelly Cock Chk'd.		TOTAL	gals.
Fire Equip. Chk'd.		Fuel on Hand 11.59 p.m. (deduct)	gals.
		FUEL USED	gals.

CASING REPORT — RAN — JTS — CSG — TO — KB. USED — SAX — CEM — PLUG DOWN — A.M. P.M. — PLUS — %

CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

TRANSFER #

Approved by Operator's Representative

Approved by Toolpusher Al Nunn

REMARKS

TIME START	TIME STOP	INTVL.	REMARKS
12 00	12 15	1/4	Rig Service Bop ✓
12 15	1 45	1 1/2	Run in w/ Bit #4 Fill Pipe
1 45	4 00	2 1/4	Drlg
4 00	4 15	1/4	Survey
4 15	4 30	1/4	Work on Pump
4 30	8 00	3 1/2	Drlg
			FIRES — DRILLER'S SIGNATURE John T. Moore
8 00	8 15	1/4	Rig Serv + L.D.A.B.
8 15	11 00	2 3/4	Drilling
11 00	11 15	1/4	Survey
11 15	1 00	1 3/4	Drilling
1 00	2 30	1 1/2	Trip out
2 30	3 00	1/2	Run in open end
3 00	3 30	1/2	Circ Hole @ 825'
3 30	4 00	1/2	Rig to Run Lost Circ. Mudsent. Plug #1
			FIRES — DRILLER'S SIGNATURE John T. Moore
4 00	4 30	1/2	Run Cement
4 30	5 00	1/2	Close Hydrill + Squeeze
5 00	5 30	1/2	Trip out Pipe
5 30	5 45	1/4	Rig Serv + L.D.S.
5 45	9 30	3 3/4	W.O.C.
9 30	10 00	1/2	Run in w/ Bit + drill Pipe Plug @ 835
10 00	11 00	1	Haist bit
11 00	11 30	1/2	Run in w/ open end
11 30	11 45	1/4	Run cement Plug Displace Same
11 45	12 00	1/4	Pull out of Plug
			FIRES — DRILLER'S SIGNATURE John T. Moore

CONSERVATION BOARD COPY

COM 47960

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG

RIG NO. 12 LOCATION H.B. Et. Al Wilson A-39 LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE March 17 19 72

DIRECTIONS TO WELL: ____ MAILING POINT ____ SHIPPING POINT ____ MILES MOVED ____ ROAD CONDITIONS ____ DAYS FROM SPUD ____

TOUR MIDNIGHT TO 8 AM TOUR 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
1470				72.	912.	25		18	6"	2 7/8	515.86	427	8.10		11.41

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
J.	4	5 3/4	VSSR	OPEN	50149			296	25 3/4									
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.	D 300				MODEL	S.P.M.					2	
GEL						LINER SIZE	6 1/2 x 14					LINER SIZE	6 1/2 x 15				3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
																	5	

ADDITIVES: 500 GEL 200 CAUST C 25 FIBRE 120 SAW DUST 22 SALT GEL

GENERAL:

SURVEYS: At Feet / Degrees

Weather: Temp. Water: Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
1470															

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
J.																		
T.																		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
																	5	

ADDITIVES: 2400 # GEL GENERAL: 50 # CAUST C 15 SAX CANE FIBER 60 # LIME 75 SAX SAWDUST

SURVEYS: At Feet / Degrees

Weather: Temp. Water: Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
1470															

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cor.	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
J.																		
T.																		
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	9.6				No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY		CUT			MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL		solved				LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
																	5	

ADDITIVES: 350 # GEL GENERAL: 50 # CAUST C 15 SAX CANE FIBER 50 # LIME 100 # SAWDUST 50 sacks

SURVEYS: At Feet / Degrees

Weather: Temp. Water: Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Pressure	Packing & Seal Inspected Date
Hydril			
Pipe Rams.			
Blind Rams.			

TOTCO RING ON BIT # ____ Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT: RAN ____ JTS ____ CSG ____ TO ____ KB. USED ____ SAX ____ CEM ____ PLUS ____ % PLUG DOWN ____ A.M. P.M. ____

CEMENT RETURNS - (YES/NO)

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD:

TOTAL COMPANY TIME ____ HRS.

TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative: J. Dubois

Approved by Toolpusher: A. Nowe

TIME	START	STOP	INTVL.
REMARKS			
Build up Volume - mix mud	2:00	2:00	2
Pump mud (No Returns)	2:00	2:45	3/4
Trip out to 645' Pump mud	2:45	3:45	1
Build Volume Mix Sufficient Mud	3:45	5:00	1 1/4
Trip in to 230' Pump Plug Fish	5:00	5:30	1/2
Build Volume mix mud + L.C.M.	5:30		1/2
Pump Down Hole (No Returns)		8:00	2 1/2
FIRES ____ DRILLER'S SIGNATURE			
Rig Serv. + B.O.P.s.	8:00	8:15	1/4
Fill mud Tanks (w) water & Clean Screens on D 300 Pump	8:15	9:00	3/4
Trip out D.C.'s + Run in open end to 822'	9:00	10:30	1 1/2
Mix mud + L.C.M.	10:30		
Pump Down Same			
Plug Pump and Cut up 50 Sx. Dust Sax. Down open end D.P.		4:00	5 1/2
Pumped 120 Bbls and returns			
FIRES ____ DRILLER'S SIGNATURE			
Rig Serv. + B.O.P.	4:00	4:15	1/4
Fill Tanks + Mix mud + LCM	4:15	8:30	4 1/4
Pump Down 50 Bbls of mud			
Returned Circ + Circ Hole			
@ 859' + Leave Sawdust			
Sax. Cement + Circ	8:30	11:00	2 1/2
Trip out Rig	11:00	12:00	1
FIRES ____ DRILLER'S SIGNATURE			

CONSERVATION BOARD COPY

COM 47959

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION H 6 Lsd 11 Willow A. 39 — LSD. ___ SEC. ___ TWP. ___ RGE. ___ W. ___ DATE March 16th 1972

DIRECTIONS TO WELL ___ MAILING POINT ___ SHIPPING POINT ___ MILES MOVED ___ ROAD CONDITIONS ___ DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 A.M.

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1410				74	13	1
				849.05		

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub.	C.B. Ft.	Ft. up on Kelly
18	7" 6"	2¼	515.84		427	8.10	8.28

B. I. T. S.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
	4	8¾	XSSR	6 out	30149													

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT				
VISCOSITY				
GEL				

PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1 PRESSURE				
MODEL S.P.M.	D 200			
LINER SIZE	6½ x 14			

PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 2 PRESSURE				
MODEL S.P.M.	500			
LINER SIZE	6½ x 15			

MOTOR HOURS: 1 13 — 2 14½ — 3 15½ — 4 16½ — 5 17½ — Next Oil Change

W.L. ___ F.C. ___ pH. ___ DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: ___ GENERAL: ___

SURVEYS: At Feet / Degrees

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut — Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1410	50	1460	6¾	72	9 1/2	25

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub.	C.B. Ft.	Ft. up on Kelly
18	7" 6"	2¼	515.86		427	5080 910	21

B. 1 T. S.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
	4	8¾	XSSR	Out	30149	10-15	68-75	786	34½			1	300	64		DR	1	1

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT		85	85	85
VISCOSITY		80	75	75
GEL				

PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1 PRESSURE		300	300	300
MODEL S.P.M.	300	64	64	64
LINER SIZE	6½ x 14			

PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.
No. 2 PRESSURE	500	1000	1000	
MODEL S.P.M.	250			
LINER SIZE	6½ x 15			

MOTOR HOURS: 1 — 2 — 3 — Next Oil Change

W.L. ___ F.C. ___ pH. ___ DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: 11 Sawdust 50# GENERAL: Left on Loc 2.0 Pts Fiber 18 sx Gel 1200# 50# Caustic

SURVEYS: At Feet 1450 / Degrees 1¾

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut — Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1460	10	1470	1½	72	14 9 12	25

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub.	C.B. Ft.	Ft. up on Kelly
18	7" 6"	2¼	515.86		427	910	11.48

B. 1 T. S.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
	4	8¾	XSSR	Out	31149	10-	70-	996	83¼			1	300	64				

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT	8.5			
VISCOSITY	68			
GEL				

PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1 PRESSURE				
MODEL S.P.M.				
LINER SIZE				

PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 2 PRESSURE				
MODEL S.P.M.				
LINER SIZE				

MOTOR HOURS: 1 — 2 — 3 — Next Oil Change

W.L. ___ F.C. ___ pH. ___ DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: Gel 2000# GENERAL: ___

Fiber 12 sx Sawdust 75 Sacs Fluid Loss @ 180

SURVEYS: At Feet / Degrees

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut — Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING ON BIT # ___ Boiler Operated: ___ Hrs.

Crown-o-matic Chk'd. ___ Rig Savers Chk'd. ___ Kelly Cock Chk'd. ___ Fire Equip. Chk'd. ___

Fuel on Hand 12.01 a.m. ___ gals.
Fuel Rec'd Today (add) ___ gals.
TOTAL ___ gals.
Fuel on Hand 11.59 p.m. (deduct) ___ gals.
FUEL USED ___ gals.

CASING REPORT: RAN ___ JTS ___ CSG ___ TO ___ KB. USED ___ SAX ___ CEM ___ PLUS ___ % ___ PLUG DOWN ___ A.M. P.M. ___ CEMENT RETURNS - (YES/NO) ___

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND — TRANSFER # ___

DAYS FROM SPUD: ___

TOTAL COMPANY TIME ___ HRS. — TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative: T. Nuhaes

Approved by Toolpusher: A. Hamm

REMARKS	TIME START	TIME STOP	TIME INTVL.
Rig Serv & Ck's Pump Mud	12:00	12:15	¼
Circ Hole (Full Returns)	12:15		
Circ To Clean Mud (Very Heavy)		1:00	1¾
Trip To Pick up Bit & Stabilizers	1:00	6:00	4
Circ & Condition Mud	6:00	8:00	2
FIRES ___ DRILLER'S SIGNATURE ___			
Rig Serv + 6 Pts.	9:00	9:15	¼
Trip	9:15	9:30	¼
Drilling	9:30	2:00	5
Survey	2:00	2:15	¼
Drilling	2:15	4:00	1¾
FIRES ___ DRILLER'S SIGNATURE ___			
Rig Serv + 6 Pts.	4:00	4:15	¼
Drilling	4:15	5:45	1½
Last Circ. @ 1470' 50 Bbls	5:45		
Mix Mud & Sawdust & Pump Down Pill (No Returns)		8:00	2¼
Mix Mud & Sawdust & Build of Volume	8:00	10:30	2½
Pump Down Mud (No Returns)	10:30	11:15	¾
Trip out 5 Stands.	11:15	11:30	¼
Mix Mud Build of Volume	11:30	12:00	½
FIRES ___ DRILLER'S SIGNATURE ___			

CONSERVATION BOARD COPY

COM 47958

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION 4 & 5 ET 11 Wilson A. 39 LSD. SEC. TWP. RGE. W. DATE March 15 19

DAILY DRILLING LOG
DIRECTIONS TO WELL
MAILING POINT
SHIPPING POINT
MILES MOVED
ROAD CONDITIONS
DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1356	54	1410	4	72	84	05

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
18	6 1/2	2 7/8	515	56	47	8.10	8.28

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
	4	8 3/4	XSR	5/16	30149	14	68	336	7 1/2			2	450	60				

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	8.6	8.7	8.8	
VISCOSITY	55	55	60	
GEL				

W.L. F.C. pH.

PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1 PRESSURE				
MODEL	TANK.			
S.P.M.				
LINER SIZE	6 1/2 x 14			

PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 2 PRESSURE	450	450	450	
MODEL				
S.P.M.	60	60	60	
LINER SIZE	6 1/2		6 1/2 x 15	

DESILTER: Hours Op: U. Flow: O. Flow:

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

SURVEYS

At Feet	Degrees
1387	1 1/4°

Weather Temp. Water Bbls.

ADDITIVES: Gel 2400 GENERAL: Tic 100#
Gel 800 10 SXS Soda Ash 100#
Sawdust 100 Bags Lost Circ 1410 600 Bbls

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TOUR TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
	4	8 3/4	XSR	5/16	30149			Out of Hole										

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT				
VISCOSITY				
GEL				

W.L. F.C. pH.

PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1 PRESSURE				
MODEL				
S.P.M.				
LINER SIZE				

PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.
No. 2 PRESSURE				
MODEL	Run Unit (Eq)			
S.P.M.				
LINER SIZE				

DESILTER: Hours Op: U. Flow: O. Flow:

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

SURVEYS

At Feet	Degrees

Weather Temp. Water Bbls.

ADDITIVES: Gel 3500 GENERAL:
Caustic 100#
Sawdust 700 Sx Cane Fiber 10 Sx

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT				
VISCOSITY				
GEL				

W.L. F.C. pH.

PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1 PRESSURE				
MODEL				
S.P.M.				
LINER SIZE				

PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 2 PRESSURE				
MODEL				
S.P.M.				
LINER SIZE				

DESILTER: Hours Op: U. Flow: O. Flow:

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

SURVEYS

At Feet	Degrees

Weather Temp. Water Bbls.

ADDITIVES: Gel 4500 GENERAL: 2 Sxs Salt Gel
Caustic 400
Sawdust 1000 Sx Cane Fiber 10 Sx Lo-Swp Pipe Lube 5 Pails

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

	START	STOP	INTVL.
Rig Serv @ 5 a.m.	4 00	12 15	1 1/4
Drilling	12 15	7 30	3 1/4
Survey	7 30	7 45	1/4
Drilling	7 45	4 30	13 1/4
Lost Circ approx 60 Bbls. 1410	4 30		
Mix Gel & Lost Circ Mat.		6 00	1 1/2
Pump Down Mud No Returns	6 00	6 15	1/4
Mix Gel & Lost Circ Material	6 15	8 00	1 3/4
FIRES DRILLER'S SIGNATURE			
Rig Serv + Lubs.	8 00	8 15	1/4
Pump Down Mud Flush (No Returns)	8 15	11 00	13/4
Mix Gel + L.C.M.	10 00	11 00	1
Trip Out Last Down Stds.			
Run In Open End.	11 00	2 00	3
Pump Down Mud + L.C.M. (No Returns)	2 00	4 00	2
Pumped Approx 300 Bbls			
FIRES DRILLER'S SIGNATURE			
Rig Serv + Lubs.	4 00	4 15	1/4
Trip + Salt Gel Hole	4 15	6 15	2
Pump Down Hole	6 15	7 45	1 1/2
Fill Tanks + Mix Mud	7 45	12 00	4 1/4
FIRES DRILLER'S SIGNATURE			

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.		gals.
Fuel Rec'd Today (add)		gals.
TOTAL		gals.
Fuel on Hand 11.59 p.m. (deduct)		gals.
FUEL USED		gals.

CASING REPORT RAN JTS CSG
TO KB. USED SAX CEM
PLUS % PLUG DOWN A.M. P.M.
CEMENT RETURNS (YES/NO)

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD:

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

TOTCO RING ON BIT #

Boiler Operated: 24 Hrs.

EQUIPMENT CHANGES

Approved by Operator's Representative

Approved by Toolpusher Al Nowe

CONSERVATION BOARD COPY

CCM 47957

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION 660 FT. N. & W. Willow A-39 — SEC. ___ TWP. ___ RGE. ___ W. ___ DATE March 14 1972

DIRECTIONS TO WELL ___ MAILING POINT ___ SHIPPING POINT ___ MILES MOVED ___ ROAD CONDITIONS ___ DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 AM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1269	19	1288	3	72	7 55.11	

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
	18	6"	2 1/2	515.56		427		28.24

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	4	8 3/4	155R		20469	10	80	114	14 1/4			2	400	60		Lost Circ		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	8.7	8.7		
VISCOSITY	65	60		
GEL				
W.L.	F.C.	pH. 11.0		

PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1 PRESSURE				
MODEL				
S.P.M.				
LINER SIZE	300		6 x 14	

PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 2 PRESSURE	1100	1100		
MODEL				
S.P.M.	60	60		
LINER SIZE	250	6 1/2 x	15	

DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: Gel 65.00 GENERAL: Lost Circ 1288
Sawdust 25 sx Sand 4 sx 100 Aloe 80 Lbs + 100 lbs
Fibre 9 Bar 11.68 Cal Caust. 50 16

MOTOR HOURS	Next Oil Change
1	10
2	12
3	14
4	16
5	

SURVEYS: At Feet 1284 — Degrees 1 1/2

Weather ___ Temp. ___ Water ___

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TIME	START	STOP	INTVL.
	1200	1230	1/2
	1230	1245	1/4
	1245	300	1/4
	300	330	1/2
	330	430	1
	430	445	1/4
	445	800	3 1/4

REMARKS

Drilling
Rig Serv & Bops
Survey
Drilling
Mix Mud & Lost Circ Material
Circ (Weak returns)
Mix Mud & Lost Circ Material

FIRES ___ DRILLER'S SIGNATURE ___

TOUR 8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1288	10	1298	1 3/4	72	12 7 55.11	

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft. Stab.	Ft. up on Kelly
	18	7" 6"	2 7/8	515.96		427	8.10	26

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	4	8 3/4	V55R	1/4"	30149	12	69	124	16			2	400	60	—	Drilling		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT		9.0		
VISCOSITY	Aerated			
GEL				
W.L.	F.C.	pH.		

PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1 PRESSURE				
MODEL	D			
S.P.M.	ON	1 TRIP	114	
LINER SIZE	300 6 1/2	x 14		

PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.
No. 2 PRESSURE				400
MODEL	C			
S.P.M.				60
LINER SIZE	250 6 1/2	x	15	

DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: 150 Salt Gel GENERAL: ___
1 - Caustic
30 Sx Sawdust

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

SURVEYS: At Feet ___ — Degrees ___

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool
	1 1/4			9				30'					

TIME	START	STOP	INTVL.
	800	900	1
	900	915	1/4
	915	1000	1
	1000	1130	1 1/2
	1130	1200	1/2
	1200	1230	1/2
	1230	100	1/2
	100	215	1 1/4
	215	400	1 3/4

REMARKS

Trip out
Lay Down 4 Drill Collars
Slipped 30' Drilling Line
Mix Salt Gel Pill
Run in open end
Pump Down Pill. Displace Pipe
Trip out Pipe
Pick up 8 3/4" Stabilizer
Run in w/ Bit
Drilling

FIRES ___ DRILLER'S SIGNATURE ___

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1298	58	1356	7 1/2	72	7 86 1	

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
	18	7" 6"	2 7/8	545.86		427	8.10	0

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	4	8 3/4	155R	1/4"	30149	12-14	68	182	23 1/2			2	450	60		R	1	N
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT			9.4	8.6
VISCOSITY			42	50
GEL				
W.L.	F.C.	pH. 9.0		

PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1 PRESSURE				
MODEL				
S.P.M.		1 TRIP		
LINER SIZE	300 6 1/2	x	14	

PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 2 PRESSURE	1400		1400	
MODEL				
S.P.M.	60		60	
LINER SIZE	C 6 1/2	x	15	

DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: Gel 2000 GENERAL: ___
Caust. 100 #

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

SURVEYS: At Feet 1324 — Degrees 1 1/4

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TIME	START	STOP	INTVL.
	400	415	1/4
	415	800	3 3/4
	800	815	1/4
	815	1200	3 3/4

REMARKS

Lay Down 4 Drill Collars
Drilling
Surveyed
Drilling

FIRES ___ DRILLER'S SIGNATURE ___

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril	✓	1 min	1500	
Pipe Rams.	✓	1 min	1500	
Blind Rams.	✓	1 min	1500	
TOTCO RING ON BIT #		Boiler Operated: 24 Hrs.		

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN ___ JTS. ___ CSG ___ TO ___ KB. ___ USED ___ SAX ___ CEM ___ PLUS ___ % ___ PLUG DOWN ___ A.M. P.M. ___ CEMENT RETURNS - (YES/NO) ___

RENTAL EQUIPMENT ON HAND ___ TRANSFER # ___

DAYS FROM SPUD: ___

EQUIPMENT CHANGES ___

TOTAL COMPANY TIME ___ HRS. — TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative: ___

Approved by Toolpusher: ___

CONSERVATION BOARD COPY

COM 47956

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG

RIG NO. 12 LOCATION 4B ET. 42 Willow H.39 LSD SEC. TWP. RGE. W. DATE March 13-L 1972

DIRECTIONS TO WELL

MAILING POINT

SHIPPING POINT

MILES MOVED

ROAD CONDITIONS

DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1174				70	10 6 28.57	

DRILL COLLARS: No. 18, O.D. 6¾", I.D. 2 11/16, Length 515.86, Air Wt. 427, Sub-Wt., C.B. Ft., Ft. up on Kelly 15

Bit	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed?	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	4	8¾	HSR		30149													

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1. FULL	3 11
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2. FULL	3 8
GEL					D 300 LINER SIZE	5½ x 14				C 250	6½ x 15				3.	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:						4.	
ADDITIVES:			GENERAL:												5.	
															Weather - Temp.	Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut (Feet)	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1174	40	1214	4	70	10 5 60	1 61

DRILL COLLARS: No. 18, O.D. 7", I.D. 2 1/8, Length 515.86, Air Wt., Sub. Wt. 427, C.B. Ft., Ft. up on Kelly 7

Bit	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	4	8¾	HSR		30149	20	68	40	4			2	400	60			DRLG	

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT			8.3	8.6	No. 1 PRESSURE	900	400	400		No. 2 PRESSURE			400	400	1.	
VISCOSITY			65	87	MODEL S.P.M.	D				MODEL S.P.M.			60	60	2.	
GEL					300 LINER SIZE	5½ x 14				C 250	6½ x 15				3.	
W.L. 9.6	F.C. 2/32	pH. 11.0			DESILTER: Hours Op:		U. Flow:		O. Flow:						4.	
ADDITIVES: 4500# Gel			GENERAL:												5.	
2 sac D-2-69 Screen out Sawdust															Weather - Temp.	Water Bbls.
105# Gelex 50# Plastic																

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut (Feet)	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 4PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1214	55	1269	7¼	72	12 5	7 3

DRILL COLLARS: No. 18, O.D. 7", I.D. 2 1/8, Length 515.86, Air Wt., Sub. Wt. 427, C.B. Ft., Ft. up on Kelly 15.86

Bit	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	4	8¾	HSR	4-16-32	30149	18-12	55-60	95	11¼			2	400	60			DRLG	

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.7	8.7	8.7	8.7	No. 1 PRESSURE	Circ.				No. 2 PRESSURE			400	400	1.	
VISCOSITY	75	75	60	50	MODEL S.P.M.					MODEL S.P.M.			60	60	2.	
GEL					LINER SIZE	5½ - 14				C 250	6½ x 15				3.	
W.L.	F.C.	pH. 11.0			DESILTER: Hours Op:		U. Flow:		O. Flow:						4.	
ADDITIVES:			GENERAL:												5.	
Gel 1200 lb.															Weather - Temp.	Water Bbls.

SURVEYS

At Feet	Degrees
1220	1¼
1253	1½

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut (Feet)	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

Crown-o-matic Chk'd. | Rig Savers Chk'd. | Kelly Cock Chk'd. | Fire Equip. Chk'd.

TOTCO RING ON BIT #

Boiler Operated: 24 Hrs.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT: RAN JTS CSG; TO KB. USED SAX CEM; PLUS % PLUG DOWN A.M. P.M.; CEMENT RETURNS - (YES/NO)

DAYS FROM SPUD:

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND

TRANSFER #:

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher

REMARKS

TIME START	TIME STOP	INTVL.
1200	1215	1/4
1215		
	215	2.
215		
	600	3¾
600	730	1½
730	800	½
800	815	1/4
815	1200	3¾
1200	400	4
400	500	1
500	515	1/4
515	530	1/4
530	915	3¾
915	920	1/4
920	1200	2½

Rig Serv. & Lay Down Reamer
Test Lay Down Reamer
Boot Rubber Stabilizer
Change Heads on Pump
in C-250
Pick up Stm Hose
Work on Mud Line
FIRES
DRILLER'S SIGNATURE
Rig Serv. & Weld
Weld Mud Line & Repair Wash Pipe
Loading & Strap
Drilling
FIRES
DRILLER'S SIGNATURE
Drilling
Rig Serv. & B.O.P.
Survey
Drilling
Survey
Drilling
FIRES
DRILLER'S SIGNATURE

CONSERVATION BOARD COPY

COM 47955

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION 6 ET AL Willow D39 LSD. SEC. TWP. RGE. W. DATE March 12 19 72

DAILY DRILLING LOG
DIRECTIONS TO WELL
MAILING POINT
SHIPPING POINT
MILES MOVED
ROAD CONDITIONS
DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1054	42	1096	5 3/4	70M.	9	565.53

DRILL COLLARS: No. 17 | O.D. 7" 6" | I.D. 2 7/8 | Length 458.03 | Air Wt. 25.96 | Sub. Wt. | C.B. Ft. | Ft. up on Kelly 22.52

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	3	8 3/4	XDV	6 VT	33432	22	55-60	102	16 3/4			2	400	64		Drill		
I																		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	8.5	8.5	8.5	8.5	No. 1 PRESSURE		100			No. 2 PRESSURE			100	
VISCOSITY	52	50	50		MODEL	D-300				MODEL	Emsco D-350			
GEL					S.P.M.	64	64			S.P.M.		64	64	
					LINER SIZE	5 1/2 x 14				LINER SIZE	5 1/2 x 15			

MOTOR HOURS: 1 5 | 2 5 | 3 | 4 | 5 | Next Oil Change

W.L. F.C. pH. 10 DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet 1057 Degrees 3/4 | Weather | Temp. | Water | Bbls.

ADDITIVES: Gel 2300 GENERAL
Sawdust 22 Caustic 200
5 Sxs Fibre Lost Circ 0 1074 — 100 Bbls

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1096	36	1132	1 3/4	70M	9	596 92

DRILL COLLARS: No. 17 | O.D. 7" 6" | I.D. 2 7/8 | Length 479.03 | Air Wt. | Sub. Wt. 25.96 | C.B. Ft. | Ft. up on Kelly 17

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	3	8 3/4	XDV	6 VT	33433	20	150	136	23 1/2			1	100	64		Drill		
I																		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	9.5	9.0	9.0	8.7	No. 1 PRESSURE	150	150	100	100	No. 2 PRESSURE				
VISCOSITY	70		90	90	MODEL	D-300				MODEL	Emsco D-350			
GEL					S.P.M.	64	64	64	64	S.P.M.				
					LINER SIZE	5 1/2 x 14				LINER SIZE	5 1/2	6	15	

MOTOR HOURS: 1 | 2 | 3 | Next Oil Change

W.L. 18.0 F.C. 3/32 pH. 12.5 DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet 1118 Degrees 3/4 | Weather | Temp. | Water | Bbls.

ADDITIVES: 3 Sxs Dril-Gel GENERAL 150 — Retrieved Fish
150 # Pet Gel Gel 1200 # Fibre Sawdust
50 # Caustic Last Circ @ 1132 — 90 Bbls

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1132	42	1174	6 1/4	70M	10	628.57

DRILL COLLARS: No. 17 | O.D. 7" 6" | I.D. 2 7/8 | Length 458.03 | Air Wt. | Sub. Wt. 25.96 | C.B. Ft. | Ft. up on Kelly 7.56

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	3	8 3/4	XDV	6 VT	33433	20	120	180	7 3/4			1	100	64		2	1	E
I																		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT					No. 1 PRESSURE			100		No. 2 PRESSURE				
VISCOSITY					MODEL	D-300				MODEL	Emsco D-350			
GEL					S.P.M.			64		S.P.M.	Down			
					LINER SIZE	5 1/2 x 14				LINER SIZE				

MOTOR HOURS: 1 | 2 | 3 | Next Oil Change

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet 1170 Degrees 3/4 | Weather | Temp. | Water | Bbls.

ADDITIVES: GENERAL

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING ON BIT # Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd. | Rig Savers Chk'd. | Kelly Cock Chk'd. | Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m. gals.
Fuel Rec'd Today (add) gals.
TOTAL gals.
Fuel on Hand 11.59 p.m. (deduct) gals.
FUEL USED gals.

CASING REPORT: RAN JTS CSG | TO KB. USED SAX CEM | PLUS % PLUG DOWN A.M. P.M. | CEMENT RETURNS - (YES/NO)

EQUIPMENT CHANGES

REMARKS

	START	STOP	INTVL.
Rig Ser & Ps - Survey	1 00	1 20	1/2
Drilling	1 20	2 30	2.
Mix. Mud & Lost Circ. Mat.	2 30	3 45	1 1/4
Circ	3 45	4 15	1/2
Drilling	4 15	8 00	3 3/4
FIRES — DRILLER'S SIGNATURE			
Drilling	8 00	12 30	4 1/2
Rig Ser + B.O.Ps	12 30	12 45	1/4
Surveyed	12 45	1 00	1/4
Drilling	1 00	3 15	2 1/4
Mix Mud + L.C.M.	3 15	4 00	3/4
Rig Ser + B.O.Ps	4 00	4 15	1/4
Circ	4 15	4 30	1/4
Drilling	4 30	10 45	6 1/4
Check out Mud Pump	10 45	11 45	1
Wire line Survey	11 45	12 00	1/4
FIRES — DRILLER'S SIGNATURE			

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD:

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher. Al Nova

CONSERVATION BOARD COPY

COM 47954

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG

RIG NO. 12 LOCATION 4-6 Ft Ah Hilton A39 LSD. ___ SEC. ___ TWP. ___ RGE. ___ W. ___ DATE March 11-12 1972

DIRECTIONS TO WELL ___ MAILING POINT ___ SHIPPING POINT ___ MILES MOVED ___ ROAD CONDITIONS ___ DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 AM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
950	40	990	7½	70M.	44	1.52.

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
	17	7" 6"	2 7/8	1155.03		2596		4.51

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.	2	7¾	W07	out	31966	15	90	147	24			2	200	60		0	0	0
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.8	8.8	8.8	8.8	No. 1 PRESSURE	LINERS		LINERS		No. 2 PRESSURE	250		200		1	
VISCOSITY	85	90	90	95	MODEL S.P.M.					MODEL S.P.M.	60		60		2	
GEL					D 300 LINER SIZE	5½ x 14				C 250 LINER SIZE	5½ x 15				3	

W.L. ___ F.C. ___ pH. 10.5 DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: Soda Ash 500# GENERAL: ___

SURVEYS At Feet	Degrees
963	1°

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
990	25	1015	5	70M	41	3 12

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	17	7" 6"	2 7/8	4880		2596		11

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.	2	7¾	W07	OUT	31966	15	90	151	15½			2	200	60		2	1	1
T.	9	22/32	VDHJ	A-T	22-22	15	90	7	½				200	60		DRILLING		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.8	TRIP		9.9	No. 1 PRESSURE		TRIP	200	200	No. 2 PRESSURE	200			200	1	
VISCOSITY	90			8.0	MODEL S.P.M.			64	64	MODEL S.P.M.	60			60	2	
GEL					D 300 LINER SIZE	5½ x 14				C 250 LINER SIZE	5½ x 15				3	

W.L. ___ F.C. ___ pH. 10.5 DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: Small Stream GENERAL: Out @ 994'

Water + Start Skimming out R.C.M.

SURVEYS At Feet	Degrees

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
1015	39	1054	7½	72M.	50	4.52

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	17	7" 6"	2 7/8	4880		2596		3.51

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.	2	7¾	XDT	OUT	33433	14	90	60	11			1	200	64		DRILL		
T.																		
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.7	8.7	8.8	8.4	No. 1 PRESSURE			200		No. 2 PRESSURE					1	
VISCOSITY	70	70	68	60	MODEL S.P.M.			64		MODEL S.P.M.		TRIP			2	
GEL					D 300 LINER SIZE	5½ x 14				C 250 LINER SIZE	5½ x 15				3	

W.L. ___ F.C. ___ pH. 10.5 DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: SMALL STREAM GENERAL: ___

WATER 1000 lb Gel - 300 lb Soda Ash

SURVEYS At Feet	Degrees
1025	3/4°

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

TIME START	TIME STOP	TIME INTVL.	REMARKS
7:00	12:15	1¼	Rig Serv + Lub
12:15	3:15	3	Drilling
3:15	3:30	¼	Survey
3:30	8:00	4½	Drilling
8:00	8:15	¼	Rig Serv + Lub.
8:15	9:45	1½	Drilling
9:45	12:30	2¾	T.O.P + 1 Blind Rams
12:30	4:00	3½	Drilling
4:00	5:45	1¾	Drilling
5:00	6:00	1¼	Rig Serv + Lub.
6:00	6:15	¼	Survey
6:15	10:00	3¾	Drilling

FIRES ___ DRILLER'S SIGNATURE W. Hughes

FIRES ___ DRILLER'S SIGNATURE E. Hughes

FIRES ___ DRILLER'S SIGNATURE ___

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

Crown-o-matic Chk'd. ___ Rig Savers Chk'd. ___ Kelly Cock Chk'd. ___ Fire Equip. Chk'd. ___

TOTCO RING ON BIT # ___ Bailer Operated: 24 Hrs.

Fuel on Hand 12.01 a.m.		gals.
Fuel Rec'd Today (add)		gals.
TOTAL		gals.
Fuel on Hand 11.59 p.m. (deduct)		gals.
FUEL USED		gals.

CASING REPORT: RAN ___ JTS ___ CSG ___ TO ___ KB. USED ___ SAX ___ CEM ___ PLUS ___ % ___ PLUG DOWN ___ A.M. P.M.

CEMENT RETURNS -- (YES/NO)

RENTAL EQUIPMENT ON HAND ___ TRANSFER # ___

DAYS FROM SPUD: ___

EQUIPMENT CHANGES ___

TOTAL COMPANY TIME ___ HRS. TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative: ___

Approved by Toolpusher: ___

CONSERVATION BOARD COPY

COM 47952

COMMONWEALTH DRILLING

DAILY DRILLING LOG

RIG NO. 12 LOCATION [illegible] LSD. SEC. TWP. RGE. W. DATE March 10 19 72

DIRECTIONS TO WELL | MAILING POINT | SHIPPING POINT | MILES MOVED | ROAD CONDITIONS | DAYS FROM SPUD

TOUR MIDNIGHT TO 8 A.M.

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
858	7	865	1½	70	31	1

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	17	6"	2 7/8	4770		2596		

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	2	7⅞	WD1	6 JT	31966	4	80	7	3¾			1	75	36		DRILL		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT				9.6	No. 1 PRESSURE				78	No. 2 PRESSURE					1	
VISCOSITY				150	MODEL S.P.M.				36	MODEL S.P.M.					2	
GEL					300 LINER SIZE	5½	X	14		250 LINER SIZE	5½	X	15		3	

W.L. F.C. pH. 11.5 DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: 5.00 # Gel GENERAL: 100 # Soda Ash
100 # Caustic 36 Sax Sawdust
1 Sax Cane Fiber 6 Sax Redwood Fiber

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut (Feet)	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 A.M. TOUR 4 P.M.

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
865	45	910	5¼	70	6 378	5

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	17	6"	2 7/8	4553		2596		22.50

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
2	2	7⅞	WD1	6 JT	31966	18-12	90	67	9			2	200	60		DRILL		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT				8.6	No. 1 PRESSURE	200	200	200		No. 2 PRESSURE				200	1	
VISCOSITY				150	MODEL S.P.M.	64	64	64		MODEL S.P.M.	1A3C	5.		60	2	
GEL					300 LINER SIZE	5½	X	14		250 LINER SIZE	5½	X	15		3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees
570 / 1⅛
900 / 1¼

ADDITIVES: Gel 24.00 # GENERAL:
Soda Ash 8.00 # Jan Dust 20 Sax
Caustic 50 # Fibre 1 Sax

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut (Feet)	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 P.M. TOUR TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
910	40	950	7½	70	6 410	1 17

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	17	6"	2 7/8	4880		2596		12

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
2	2	7⅞	WD1	6 JT	31966	15	90	107	16½			2	250	60		DRILL		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.5				No. 1 PRESSURE	[illegible]	[illegible]			No. 2 PRESSURE	225	250	200	25	1	
VISCOSITY	60				MODEL S.P.M.					MODEL S.P.M.	60	60	60	60	2	
GEL					300 LINER SIZE	5½	X	14		250 LINER SIZE	5½	X	15		3	

W.L. F.C. pH. 12.0 DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees
420 / 1°

ADDITIVES: Gel 24 Sax Drill 30 Sax GENERAL:
Soda Ash 300 #

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut (Feet)	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

REMARKS	START	STOP	INTVL.
Rig Serv. + Lube	12:00	12:15	¼
Mix Mud + Circ.	12:15	3:00	2¾
Wait on Csg. Crew	3:00	5:00	2
Rig Up Csg. Crew			
Mud Fill up Line	5:00	5:30	½
Circ. Show	5:30	6:00	½
Drilling	6:00	7:30	1½
Circ.	7:30	8:00	½
Fuel 4' 7"			
FIRES E. Fuentes DRILLER'S SIGNATURE			
Rig Serv. + Lube	8:00	8:15	¼
Circ. Casing Volume.	8:15	8:30	¼
Drilling	8:30	9:30	1
Build Volume 14.4 Mud & Survey	9:30		
Clean out D. 300		11:00	1½
Drilling	11:00	2:00	2¾
Con Survey Clean out 0300	2:00	2:30	½
Drilling	2:30	4:00	1½
FIRES [illegible] DRILLER'S SIGNATURE			
Drilling	4:00	9:45	4¾
Rig Serv + Lube	9:45	9:00	¼
Survey	9:00	9:15	¼
Drilling	9:15	12:00	2¾
FIRES E. Fuentes DRILLER'S SIGNATURE			

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril	✓	1 min	1500	
Pipe Rams	✓	1 min	1500	
Blind Rams			1500	

TOTCO RING ON BIT # 2 Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd. | Rig Savers Chk'd. | Kelly Cock Chk'd. | Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m. gals.
Fuel Rec'd Today (add) gals.
TOTAL gals.
Fuel on Hand 11.59 p.m. (deduct) gals.
FUEL USED gals.

CASING REPORT RAN JTS. CSG TO KB. USED SAX CEM PLUS % PLUG DOWN A.M. P.M. CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS. TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative [signature]

Approved by Toolpusher [signature]

CONSERVATION BOARD COPY

COM 40550

COMMONWEALTH DRILLING

DAILY DRILLING LOG

DIRECTIONS TO WELL

RIG NO. 12 LOCATION Hudson's Bay Ft. Al. A 39 LSD. SEC. Willow TWP. RGE. W. DATE March 9 19 72

MAILING POINT SHIPPING POINT MILES MOVED ROAD CONDITIONS DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
843	15	858	2¼	70	3	9

DRILL COLLARS: No. 17, O.D. 6", I.D. 2 7/8, Length 488.03, Air Wt., Sub. Wt. 2576, C.B. Ft., Ft. up on Kelly 11

Bit No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
2	8¾	WDT	OUT	31966	45	80	15	2¼			2	200	60				

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT				8.6	No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY				40	MODEL					MODEL S.P.M.					2	
GEL					30 S.P.M.					LINER SIZE 5½ x 14					3	

W.L. F.C. pH. 11.0 DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: Gel 2500 # GENERAL: 8 a.m. Sand 3.8

25 Sx Sawdust

5 Sax Cone Fiber Caustic 100 #.

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
858				70	3 15	9 1

DRILL COLLARS: No. 17, O.D. 6", I.D. 2 7/8, Length 488.03, Air Wt. 2576, C.B. Ft., Ft. up on Kelly 11

Bit No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
2	8¾	WDT	OUT	31966			15	11¼									

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	9.1				No. 1 PRESSURE					No. 2 PRESSURE			T.W.K.		1	
VISCOSITY	40				MODEL					MODEL S.P.M.					2	
GEL	1				LINER SIZE	D300	5½ x 14			LINER SIZE	5	5½ x	15		3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: Gel 6000 lb. GENERAL:

5 Sawdust 3 Sx 300 lb Caustic

300 lb Soda Ash 50 lb Lime 15 Sx Fibre

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
858						

DRILL COLLARS: No., O.D., I.D., Length, Air Wt., Sub. Wt., C.B. Ft., Ft. up on Kelly

Bit No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

ADDITIVES: Gel 1500 # GENERAL:

20 # Caustic

2 Sax Redwood Fiber

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS	TIME START	TIME STOP	TIME INTVL.
Tag Dev + 1 S.D.Ps	1200	1215	¼
T.I.P Out + 1 Blind Bums	1215	130	1¼
Run in w/ Bit #2	130	300	1½
Mix Mud + L.C.M.	300	430	1½
Drill Blind 842' - 849'	430	515	¾
Circulating @ 849'	515	600	¾
Drilling	600	720	1½
Mix Mud.	720	800	½
FIRES D. Fluman DRILLER'S SIGNATURE			
Rig Ser + Eqs	800	815	¼
Mix Mud Chain out D.300	815	900	1¼
Pump Mud Down Hole (No Returns)	900	915	1¼
Mix Mud + L.C.M.	915	1015	1
Trip out Pk Bottle Pipe Plug	1015		
N Circ on Way in - Mix Mud.		100	3¾
Circ Two Stds off Btm (Lost Circ)	100	145	¾
Mix Mud + Lost Circ Mat'l	145	400	2¼
FIRES D. Fluman DRILLER'S SIGNATURE			
Rig Serv Eqs	400	416	¼
Blew Mud Lines + Trip	415		
To Fall of Spruce Tree		700	2¾
Drill on Tree @	700	800	1
Pump Down Hole w/ Some Returns	800	1000	2
Clean out Pumps	1000	1100	1
Fill Tanks + Mix Mud	1100	1200	1
FIRES D. Fluman DRILLER'S SIGNATURE			

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

Crown-o-matic Chk'd. | Rig Savers Chk'd. | Kelly Cock Chk'd. | Fire Equip. Chk'd.

TOTCO RING ON BIT # Boiler Operated: 24 Hrs.

Fuel on Hand 12.01 a.m.		gals.
Fuel Rec'd Today (add)		gals.
TOTAL		gals.
Fuel on Hand 11.59 p.m. (deduct)		gals.
FUEL USED		gals.

CASING REPORT: RAN JTS CSG TO KB. USED SAX CEM PLUS % PLUG DOWN A.M. P.M. CEMENT RETURNS: (YES/NO)

RENTAL EQUIPMENT ON HAND TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS. TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative T. Fuhrman

Approved by Toolpusher A. Norem

CONSERVATION BOARD COPY

COM 40549

COMMONWEALTH DRILLING

DAILY DRILLING LOG

DIRECTIONS TO WELL

RIG NO. 12 LOCATION Hutton's Ext. Ft. Willow #-39 SEC. TWP. RGE. W. DATE March 8 19 72

MAILING POINT SHIPPING POINT MILES MOVED ROAD CONDITIONS DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
722	33	755	7 3/4	72 M	221	38

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	17	6"	2 7/8	488.03		2596		20

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	1	8 3/4	WD7	0 & T	29715	10-15	80	33	8 1/4			1	1350	64		DRLG		
I																		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	8.6	8.2	8.2	8.2
VISCOSITY	70	65	60	62
GEL				

PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1 PRESSURE	1350	1350	1350	1350
MODEL 300 S.P.M.	64	64	64	64
LINER SIZE	5 1/2	x	14	
No. 2 PRESSURE	ON	MUD HOLE		
MODEL 250 S.P.M.				
LINER SIZE	5 1/2	x	12	

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

W.L. F.C. pH. 11.0

DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: 200 Bi Carb. GENERAL:

SURVEYS	At Feet	Degrees

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut	Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
755	40	795	6 1/4	70 M	252	74

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	17	6"	2 7/8	488.03		2596		11.75

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	1	8 3/4	WD7	0 & T	29715	15-20	80	79	15			1 & 2	350	64		1 RR C.		
I																		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	8.7	8.7	8.6	8.6
VISCOSITY	40	430	48	54
GEL				

PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1 PRESSURE	350	150	150	350
MODEL 300 S.P.M.	64	64	64	64
LINER SIZE	5 1/2	x	14	
No. 2 PRESSURE	ON MUD HOLE			
MODEL 250 S.P.M.				
LINER SIZE	5	2 x	15T	

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

W.L. F.C. pH. 12.0

DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: 3000 GEL GENERAL: Lost Circ - 761-765-1000 lbs

30 SX Saw Dust - 1 SX F.B. Reseal - 200 lbs Soda Ash

300 lb Caust. C. 3 Gal DV 68

SURVEYS	At Feet	Degrees
	775	1/8

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut	Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
795	48	843	4	70	315	91

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	17	6"	2 7/8	488.03		2596		26

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	1	8 3/4	WD7	0 & T	29715	20	80	127	19			1	200	64		4	1	1
I																		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT	8.6			
VISCOSITY	50			
GEL		5 1/2	x 14	

PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1 PRESSURE				100
MODEL D-300 S.P.M.				64
LINER SIZE	5 1/2	x	15	
No. 2 PRESSURE				
MODEL 250 S.P.M.				
LINER SIZE				

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

W.L. F.C. pH.

DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GEL - 4 000 GENERAL: 100 Caustic

50 SX Saw Dust 100 Soda Ash

1 Sack Cane Fiber Lost Circ at 832

SURVEYS	At Feet	Degrees
	806	7/4

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut	Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT #

Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd.
Rig Savers Chk'd.
Kelly Cock Chk'd.
Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11:59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT RAN JTS CSG TO KB. USED SAX CEM PLUG DOWN A.M. P.M. PLUS %

CEMENT RETURNS (YES/NO)

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND TRANSFER #

DAYS FROM SPUD:

TOTAL COMPANY TIME HRS. TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher

REMARKS

REMARKS	TIME START	TIME STOP	TIME INTVL.
Rig Serv + C.F.S. + O.T.S.	12:00	12:15	1/4
Drilling	12:15	7:00	7 3/4
Rig			
FIRES			
B. Hunter DRILLER'S SIGNATURE			
Rig Serv - Pipe	8:00	8:15	1/4
Welding	8:15	10:30	2 1/4
Mix Mud - Lost Circ Material	10:30	11:15	1/4
Welding	11:15	12:45	1
Survey - Chg Drlg Line	12:45	1:00	1/4
Drilling	1:00	4:00	3
Rig			
FIRES			
L. Wilson DRILLER'S SIGNATURE			
Rig Serv & C.F.S.	4:00	4:15	1/4
Drilling	4:15	5:00	3/4
Survey	5:00	5:15	1/4
Drilling	5:15	7:00	1 3/4
Mix Mud - Lost Circ Material	7:00		
Pump Down Hole (No Returns)		8:00	1
Mix Lost Circ Material + Gel	8:00	10:30	2 1/2
Drill Blind 832'-843'	10:30	12:00	1 1/2
Lost Circ @ 832 Pumped 170 Bbls			
FIRES			
B. Hunter DRILLER'S SIGNATURE			

CONSERVATION BOARD COPY

COM 40548

COMMONWEALTH DRILLING

DAILY DRILLING LOG

DIRECTIONS TO WELL

RIG NO. 12 LOCATION Hudson's Bay Et. Al. H 39 SEC. 11 TWP. 9W RGE. W. DATE March 7 19 72

MAILING POINT SHIPPING POINT MILES MOVED ROAD CONDITIONS DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	1	8 3/4	WDT		29715	—												

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT				
VISCOSITY				
GEL				
W.L.	F.C.	pH.		

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1	PRESSURE				
MODEL	S.P.M.				
	LINER SIZE				

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 2	PRESSURE				
MODEL	S.P.M.				
	LINER SIZE				

DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL: Checked Kelly Cock + Motor Shut Offs. Working O.K.

MOTOR HOURS	Next Oil Change
1	
2	
3	

SURVEYS	At Feet	Degrees
4		
5		

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
					3	1		17	6"		488.63		25.96		0
					158	66									

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT				
VISCOSITY				
GEL				
W.L.	F.C.	pH.		

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1	PRESSURE				
MODEL	S.P.M.				
	LINER SIZE				

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 2	PRESSURE				
MODEL	S.P.M.				
	LINER SIZE				

DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: 6000 # GEL GENERAL: LCM DV68 600 # SOUTH ASH 100 # CAUSTIC 8 SX FIBRE

MOTOR HOURS	Next Oil Change
1	
2	
3	

SURVEYS	At Feet	Degrees
4		
5		

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
716	6	722	1	72	3	190		17	6"	2 7/8	488.03		25.96		22
						03									

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	1	8 3/4	WDT	20's	29715	10M	30	6	1	—		1	100	64	—	DRL		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT				
VISCOSITY				80
GEL				
W.L.	F.C.	pH.		

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1	PRESSURE				100
MODEL	S.P.M.				64
300	LINER SIZE	5 1/2	X	14	

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 2	PRESSURE	MIXER			
MODEL	S.P.M.				
250	LINER SIZE	5 1/2	X	15	

DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: 50 SAX SPUD GENERAL:
190L DV68
GEL - 1000

MOTOR HOURS	Next Oil Change
1	
2	
3	

SURVEYS	At Feet	Degrees
4		
5		

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril	15 MIN	1 MIN	1500	O.K.
Pipe Rams.	15 "	1 MIN	1500	O.K.
Blind Rams.				

TOTCO RING ON BIT # Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	✓
Kelly Cock Chk'd.	✓
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT RAN JTS CSG TO KB. USED SAX CEM PLUS % PLUG DOWN A.M. P.M.

CEMENT RETURNS (YES/NO)

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND

DAYS FROM SPUD:

TRANSFER #

TOTAL COMPANY TIME HRS. TOTAL CONTRACTOR'S TIME HRS.

Approved Operator's Representative

Approved by Toolpusher

REMARKS

REMARKS	TIME START	TIME STOP	TIME INTVL.
Run in (w) Bit	12 MN	2:00	2
Pressure test Pipe Rams			
Hy Drill + Manifold	2:00	3:00	1
Drill out Cement + Shoe	3:00	5:00	2
On Plug B.I.T (Reverse Circ)	5:00	5:30	1/2
Cleaning out to Bottom	5:30	8:00	2 1/2
FIRES — DRILLER'S SIGNATURE			
Blow mud lines & Trip	8:00		
To Unplug Bit		9:30	1 1/2
Clean out mud tanks	9:30	10:45	1 1/4
Rig Ser & Check Blind Rams.	10:45	11:00	3/4
Cond. Mud	11:00	1:00	2
Clean out Fr 647 To 712	1:00	3:30	2 1/2
Mix mud & LCM	3:30	4:00	1/2
FIRES — DRILLER'S SIGNATURE			
Rig Ser & B.O.P.	4:00	4:15	1/4
Mix mud & Lost Circ Mat	4:15	5:15	1
Trip out To Unplug Bit	5:15	6:45	1 1/2
Mix mud & Lost Circ Material	6:45	9:30	2 3/4
Run in (w) Bit	9:30	10:30	1
Clean to Bottom - 712' - 716'	10:30	11:00	1/2
Drill 8 3/4" Hole	11:00	12:00	1
FIRES — DRILLER'S SIGNATURE			

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COM 40547

COMMONWEALTH DRILLING

DAILY DRILLING LOG

RIG NO. 12 LOCATION Hz ET. AL D39 LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE March 6/72 19__

DIRECTIONS TO WELL ____ MAILING POINT ____ SHIPPING POINT ____ MILES MOVED ____ ROAD CONDITIONS ____ DAYS FROM SPUD ____

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
568															

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
I.																		
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. ____ F.C. ____ pH. ____ DESILTER: Hours Op: ____ U. Flow: ____ O. Flow: ____

ADDITIVES: ____ GENERAL: ____

SURVEYS: At Feet / Degrees — 4 — 5

Weather ____ Temp. ____ Water ____ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TO 4 PM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
I.																		
T.																		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. ____ F.C. ____ pH. ____ DESILTER: Hours Op: ____ U. Flow: ____ O. Flow: ____

ADDITIVES: ____ GENERAL: CHANGED BRAKE BLOCKS IN DRAWORKS

SURVEYS: At Feet / Degrees — 4 — 5

Weather ____ Temp. ____ Water ____ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 PM TO MIDNIGHT TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
I.																		
T.																		
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. ____ F.C. ____ pH. ____ DESILTER: Hours Op: ____ U. Flow: ____ O. Flow: ____

ADDITIVES: ____ GENERAL: ____

SURVEYS: At Feet / Degrees — 4 — 5

Weather ____ Temp. ____ Water ____ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.	15 MIN	1 MIN	1500	OK.

TOTCO RING ON BIT # ____ Bailer Operated: 24 Hrs.

Crown-o-matic Chk'd. ____ Rig Savers Chk'd. ✓ Kelly Cock Chk'd. ____ Fire Equip. Chk'd. ____

Fuel on Hand 12.01 a.m. ____ gals.
Fuel Rec'd Today (add) ____ gals.
TOTAL ____ gals.
Fuel on Hand 11.59 p.m. (deduct) ____ gals.
FUEL USED ____ gals.

CASING REPORT: RAN ____ JTS ____ CSG. TO ____ KB. USED ____ SAX ____ CEM PLUS ____ % PLUG DOWN ____ A.M. P.M. CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND ____ TRANSFER # ____

DAYS FROM SPUD: ____

EQUIPMENT CHANGES ____

TOTAL COMPANY TIME ____ HRS. TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative ____

Approved by Toolpusher Al Nunn

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COM 40546

REMARKS

	START	STOP	INTVL.
CUT OFF CASING + WELD ON BOWL	12 00	8 00	8
WELDING ON CASING	8 00		
BOWL. PRESSURED TO 1500 OK.		10 45	2 3/4
HEADING UP	10 45	4 00	5 1/4
HEATING UP	4 00	10 00	4
PRESSURE TEST BLIND RAMS TO 1000 # P.S.I. FOR 15 MIN. OK	10 00	11 00	1
CHECK MOTOR SHUT OFFS. MAKE UP BIT ROLLER REAMER 1 D.C. + STABILIZER			
CHANGE RUBBER TO 8 3/4"	11 00	12 00	1

FIRES ____ D. Hunter DRILLER'S SIGNATURE

FIRES ____ Leonard Hunter DRILLER'S SIGNATURE

COMMONWEALTH DRILLING

DAILY DRILLING LOG

RIG NO. 12 LOCATION 4 Miles S of Et. of Willow LSD. 4 SEC. 29 TWP. ___ RGE. ___ W. ___ DATE March 5 19 72

DIRECTIONS TO WELL ___ MAILING POINT ___ SHIPPING POINT ___ MILES MOVED ___ ROAD CONDITIONS ___ DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 AM TOUR 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
530	38	568	5 3/4	47	3 18	20

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	3	7	2 7/8	216.17		157.1		1
	8	6						

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	3C	17½	DGJ	O.K'ed	62334	15-45	80			RR	30¼	1	200	64	—	4	1	
I																		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT	9	9.0	9.5	9.2	No. 1 PRES-SURE	200	200	200	200	No. 2 PRES-SURE	DM	Cellar			1	
VISCOSITY	42	40.0	39	41	MODEL	64	64	64	64	MODEL S.P.M.		24			2	
GEL	12				300 S.P.M.					250 LINER SIZE	5½	X	12		3	
W.L.	F.C.		pH.	10.5	DESILTER: Hours Op:		U. Flow:		O. Flow:						SURVEYS At Feet	Degrees
ADDITIVES: GEL - 1000# CAUSTIC - 50# SAWDUST 12 SKS#					GENERAL:										4	
															5	
															Weather Temp.	Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRES-SURE					No. 2 PRES-SURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	
W.L.	F.C.		pH.		DESILTER: Hours Op:		U. Flow:		O. Flow:						SURVEYS At Feet	Degrees
ADDITIVES:					GENERAL:										4	
															5	
															Weather Temp.	Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRES-SURE					No. 2 PRES-SURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	
W.L.	F.C.		pH.		DESILTER: Hours Op:		U. Flow:		O. Flow:						SURVEYS At Feet	Degrees
ADDITIVES: 2 SAX F-12 - 8					GENERAL: Circ Cement										4	
															5	
															Weather Temp.	Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT # ___ Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd. ___ Rig Savers Chk'd. ___ Kelly Cock Chk'd. ___ Fire Equip. Chk'd. ___

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT RAN 18 JTS 18 3/4 CSG 48 & 54.5#

TO 568 KB. USED 600 SAX Cmt • CEM

PLUS 3 % 5 45 PLUG DOWN A.M. P.M.

CEMENT RETURNS - (YES/NO) ___

RENTAL EQUIPMENT ON HAND ___ TRANSFER # ___

DAYS FROM SPUD: ___ TOTAL COMPANY TIME ___ HRS. TOTAL CONTRACTOR'S TIME ___ HRS.

EQUIPMENT CHANGES ___

Approved by Operator's Representative ___

Approved by Toolpusher ___

REMARKS	TIME START	TIME STOP	TIME INTVL.
Rig Serv	12:00	12:15	1/4
Clean	12:00	2:00	1 3/4
Work on Conductor Bel.	2:00	3:00	1
Clean	3:00	7:00	4
Trip For Bit	7:00	8:00	1
Dev 6°			
FIRES ___ E. Hunter DRILLER'S SIGNATURE			
Rig Serv	8:00	8:15	1/4
Drink Bit Subs - Boot Reamer	8:15		
- Lay Down with one 7" D.C.s		9:00	3/4
Rig To Run 13 3/8 Casing	9:00	10:00	1
Running 13 3/8 Casing 18 Joints	10:00	2:00	4
Rig To Circ & Circulating	2:00	4:00	2
Cement 3 Pump Plug	4:00	5:45	1 3/4
WOC.	5:45	12:00	6 1/4
USED 16 SAX. CEMENT			
TO CEMENT CASING FROM TOP.			
FIRES ___ DRILLER'S SIGNATURE			

STATE OF ALASKA MAR 15 1972

CONSERVATION BOARD COPY

COM 40545

COMMONWEALTH DRILLING

DAILY DRILLING LOG

RIG NO. 12 LOCATION Hudgens Lse Et. #1 Willow LSD. 4 SEC. 39 TWP. ___ RGE. ___ W. ___ DATE March 4 19 72

DIRECTIONS TO WELL ___ MAILING POINT ___ SHIPPING POINT ___ MILES MOVED ___ ROAD CONDITIONS ___ DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 AM TOUR 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
394	56	450	7¼	47	94.70	

DRILL COLLARS: No. 7, O.D. 6", I.D. 2⅞, Length 316.27, Air Wt. ___, Sub. Wt. 157.1, C.B. Ft. ___, Ft. up on Kelly 18

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	3C	11½	DGJ	0-EN	234	10-12	80			75	12	1	200	64	—	Full		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT	9.3	9.2	9.3	9.2	No. 1 PRES-SURE	150	150	200	200	No. 2 PRES-SURE	ON	CHOKE			1	
VISCOSITY	60	61	70	69	MODEL S.P.M.	69	60	60	64	MODEL S.P.M.		JET			2	
GEL					300 LINER SIZE	5½	X	14		250 LINER SIZE	5½	X	12"		3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:						4	
ADDITIVES:					GENERAL:										5	
															Weather / Temp.	Water Bbls.

SURVEYS: At Feet / Degrees

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
450	50	500	7½	47	2 157.80	1

DRILL COLLARS: No. 3, O.D. 7", I.D. ___, Length 316.57, Air Wt. 15.77, C.B. Ft. ___, Ft. up on Kelly 31

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	3C	11"	DGJ	0-EN	JG334	10-12	80			105	14½	1	200	64	—	Full		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	9.4	9.4	9.6	9.7	No. 1 PRES-SURE	200	200			No. 2 PRES-SURE					1	
VISCOSITY	70	69	68	65	MODEL S.P.M.	64	64			MODEL S.P.M.	ON	CHOKE	JET		2	
GEL					300 LINER SIZE	5½	X 14			LINER SIZE	5½	X			3	
W.L.	E.C.	pH. 7.0			DESILTER: Hours Op:		U. Flow:		O. Flow:						4	
ADDITIVES:					GENERAL:										5	
															Weather / Temp.	Water Bbls.

SURVEYS: At Feet / Degrees

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
500	30	530	5	47	2 157.80	

DRILL COLLARS: No. 3, O.D. 7", I.D. 2¼, Length 316.89, Air Wt. 15.77, C.B. Ft. ___, Ft. up on Kelly 2

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	3C	11"	DGJ	0-EN	JG334	10-12	80			155	24½	1	200	64	—	Full		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	9.7	10.0	10.0	10.1	No. 1 PRES-SURE	200				No. 2 PRES-SURE	ON	CHOKE			1	
VISCOSITY	53	55	53	52	MODEL S.P.M.	64				MODEL S.P.M.					2	
GEL					300 LINER SIZE	5½ X 16				12½ LINER SIZE	5½	X 16			3	
W.L.	F.C.	pH. 7.0			DESILTER: Hours Op:		U. Flow:		O. Flow:						4	
ADDITIVES: 100# CAUSTIC					GENERAL:										5	
WATER															Weather / Temp.	Water Bbls.

SURVEYS: At Feet / Degrees

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

Crown-o-matic Chk'd. ___ Rig Savers Chk'd. ___ Kelly Cock Chk'd. ___ Fire Equip. Chk'd. ___

TOTCO RING ON BIT #. ___ Boiler Operated: 24 Hrs.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT: RAN ___ JTS ___ CSG ___ TO ___ KB. USED ___ SAX ___ CEM ___ PLUS ___ % ___ PLUG DOWN ___ A.M. P.M. ___

CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND ___ TRANSFER # ___

DAYS FROM SPUD: ___

EQUIPMENT CHANGES

TOTAL COMPANY TIME ___ HRS. TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative ___

Approved by Toolpusher ___

REMARKS	TIME START	TIME STOP	TIME INTVL
Rig Serv	1200	1215	¼
Work up Cellar Jet.	1215	1245	½
Reaming	1245	800	19¼
Fuel 314"			
FIRES ___ DRILLER'S SIGNATURE ___			
Reaming	800	1030	2½
Con Rig Serv & Pump	1030	1100	½
Reaming	1100	1400	5
FIRES ___ DRILLER'S SIGNATURE ___			
Reaming	400	900	5
Trip To Check Bit	900	1200	3
FIRES ___ DRILLER'S SIGNATURE ___			

CONSERVATION BOARD COPY

COM 40544

COMMONWEALTH DRILLING

DAILY DRILLING LOG

DIRECTIONS TO WELL

RIG NO. 12 LOCATION 660 FT. NL Kirkland A 39 LSD SEC. TWP. RGE. W. DATE March 3rd 19 72

MAILING POINT SHIPPING POINT MILES MOVED ROAD CONDITIONS DAYS FROM SPUD

TOUR MIDNIGHT TO 8AM TOUR

From 375 | Footage | To | Hrs. on Bottom | Wt. Drill Pipe (1000 lbs.) | Stands | Singles

DRILL COLLARS: No. 3 | O.D. 7" | I.D. | Length 316.57 | Air Wt. | Sub. Wt. 17.71 | C.B. Ft. | Ft. up on Kelly 0

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	11
VISCOSITY					MODEL 300 S.P.M.					MODEL 250 S.P.M.					2	8
GEL					LINER SIZE 5½ x 14					LINER SIZE 5½ x 15					3	8

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees — 4 1/2° — 5 1/4°

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

WAIT ON 17½" REAMER.

TIME: START 4:00 — STOP 8:00 — INTVL. 8

FIRES

D. McGraw
DRILLER'S SIGNATURE

8AM TO 4PM

From 375 | Footage | To | Hrs. on Bottom | Wt. Drill Pipe (1000 lbs.) | Stands | Singles

DRILL COLLARS: No. | O.D. | I.D. | Length | Air Wt. | Sub. Wt. | C.B. Ft. | Ft. up on Kelly

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	TA		9.3	9.3	No. 1 PRESSURE				225	No. 2 PRESSURE	SW	MUD			1	
VISCOSITY			40	76	MODEL 300 S.P.M.				64	MODEL 250 S.P.M.		MIX	— GEL		2	
GEL					LINER SIZE 5½ x 14					LINER SIZE 5½ x 15					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: Gel 100# GENERAL:
Lime 50# Lo-Card 100#
Caustic 20#

SURVEYS: At Feet / Degrees

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

RUN IN (WL) 12¼" E.T. Line + Glenn Pilot Hole To 6.16'
REMOVE L.C.M. FROM MUD
BUILD VOLUME + CONDITION MUD

E. Hunter
DRILLER'S SIGNATURE

FIRES

4PM TO MIDNIGHT

From 375 | Footage 19 | To 394 | Hrs. on Bottom 11 3/4 | Wt. Drill Pipe (1000 lbs.) 47 | Stands | Singles 1 31.36

DRILL COLLARS: No. 3 | O.D. 6" | I.D. | Length 316.57 | Air Wt. | Sub. Wt. 15.61 | C.B. Ft. | Ft. up on Kelly 10

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	3C	17½	DGJ	OPEN	J6234	10	80	19	4 3/4			1	1100					
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	TP		9.1	9.1	No. 1 PRESSURE			100	100	No. 2 PRESSURE	ON	MUD	UP		1	
VISCOSITY			90	88	MODEL 300 S.P.M.					MODEL 250 S.P.M.		TANKS			2	
GEL		P			LINER SIZE 5½ x 14					LINER SIZE 5½ x 15					3	

W.L. F.C. pH. 11.5 DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

WAIT ON 17½" REAMER.
TRIP OUT 12¼ BIT
MAKE UP 17½" BIT RUN IN
DRILLING 17½" HOLE

TIME: START 11:00 — STOP 6:15 — INTVL. 6 3/4 — 1 — 11 3/4

FIRES

D. McGraw
DRILLER'S SIGNATURE

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT #

Boiler Operated: Hrs.

Crown-o-matic Chk'd. | Rig Savers Chk'd. | Kelly Cock Chk'd. | Fire Equip. Chk'd.

	gals.
Fuel on Hand 12.01 a.m.	
Fuel Rec'd Today (add)	
TOTAL	
Fuel on Hand 11.59 p.m. (deduct)	
FUEL USED	

CASING REPORT: RAN JTS CSG TO KB. USED SAX CEM PLUG DOWN A.M. P.M. PLUS %

CEMENT RETURNS - (YES/NO)

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD:

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher

CONSERVATION BOARD COPY

COM 40543

COMMONWEALTH DRILLING

DAILY DRILLING LOG

DIRECTIONS TO WELL

RIG NO. 12 LOCATION 4.5 Ft. W. Wilson D. 39 LSD. SEC. TWP. RGE. W. DATE March 2nd 1972

MAILING POINT SHIPPING POINT MILES MOVED ROAD CONDITIONS DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
307	35	342	6 3/4	37	2 154	1 31

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
	3	7"						20.30
	2	6"		147.35		177.1		

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	J.C	17½	Hot Rock			10	130			46	9½	1	150	115		2	Con	
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	9.5	9.5	9.5	9.5
VISCOSITY	40	42	88	90
GEL				

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1	PRESSURE	150		150	
MODEL 300	S.P.M.	45		45	
	LINER SIZE	5½	x 14		

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 2	PRESSURE				
MODEL 250	S.P.M.	Cline	Jet		
	LINER SIZE	5½	x 15		

MOTOR HOURS	Next Oil Change
1	10
2	3
3	
4	
5	

W.L. F.C. pH.

DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

Weather Temp. Water Bbls.

ADDITIVES: Gel = 400# Lime = 50#

GENERAL:

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
342	28	370	5 3/4	42		

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	3	7"						5
	2	6"		316.87		177.1		

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	2C	17½	Hot Rock			4-8	50-80			74	18½	1	150	50		2	Con	
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	9.5	9.5	9.6	9.6
VISCOSITY	95	100	92	90
GEL				

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1	PRESSURE	150			
MODEL 300	S.P.M.	50			
	LINER SIZE	5½	x 14		

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 2	PRESSURE	300	Cline		
MODEL 250	S.P.M.		Jet		
	LINER SIZE	5½	x 15		

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

W.L. F.C. pH.

DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

Weather Temp. Water Bbls.

ADDITIVES: Gel 1000 Lime 50# Fiber 6 Bags

GENERAL:

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
370	5	375	2¼			

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	3	7"						0
	2	6"		316.5	7	177.1		

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	2C	17½	Hot Rock			1-8	50-80			79	17½	1	150	50				
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT				
VISCOSITY				
GEL				

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1	PRESSURE				
MODEL 300	S.P.M.				
	LINER SIZE	5½	x 14		

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 2	PRESSURE				
MODEL 250	S.P.M.				
	LINER SIZE	5½	x 15		

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

W.L. F.C. pH.

DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees

Weather Temp. Water Bbls.

ADDITIVES:

GENERAL:

Need 10 Sax Cement in Cellar

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

REMARKS	TIME START	TIME STOP	TIME INTVL.
Reaming 12¼" To 17½" Hole	1200	100	1
Rig Ser	100	115	1/4
Reaming 17½" Hole	115	800	6 3/4
FIRES L. Wilson DRILLER'S SIGNATURE			
Rig Ser	800	815	1/4
Reaming	815	900	1
Clean out Pump (C-250)	900	930	1/2
Reaming	930	1215	2 3/4
Laid Down 4 Singles + Kick			
up 6 D.C.s	1215	100	3/4
Reaming	100	230	1½
Clean out Pump (D300) +			
Unplug Cellar Jet	230	315	3/4
Reaming	315	400	3/4
FIRES L. Wilson DRILLER'S SIGNATURE			
Ser Rig	400	415	1/4
Ream	415	630	2¼
Work on Pump (D300) Clean			
Valves + Check Head Flywheel Side	630	800	1½
Trip out To Check Rmr.	800	830	1/2
Cement W/Shout In Cellar	830		
While Waiting on 17½" Reamer		1200	
FIRES DRILLER'S SIGNATURE			

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected
Hydr.				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT #

Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd.	
Rig Floor Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT: RAN JTS CSG

TO KB. USED SAX CEM

PLUG DOWN A.M. P.M. PLUS %

CEMENT RETURNS - (YES/NO)

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD CONSTRUCTION

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative T. Sullivan

Approved by Toolpusher Al Nunn

MAR 13 1972 FELLOWKNIFE N.W.T. MUNICIPAL DEVELOPMENT BRANCH

CONSERVATION BOARD COPY

COM 40542

COMMONWEALTH DRILLING

DAILY DRILLING LOG

RIG NO. 12 LOCATION U.B. E½ Al Willow A-39 LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE MARCH 1 19 72

DIRECTIONS TO WELL ____ MAILING POINT ____ SHIPPING POINT ____ MILES MOVED ____ ROAD CONDITIONS ____ DAYS FROM SPUD ____

TOUR MIDNIGHT TO 8 AM TOUR 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
200	60	260	7¾	36.	1-2	72

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
3	7"	2 7/8	147.48		17.71		8
2	6"						

BIT

No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1-C	12¼	F-20	Reams		8-	130			260	29	1	150	75		R	W	N

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	9.3	9.2	9.2	9.3
VISCOSITY	75	68	64	66
GEL				

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1	PRESSURE	150	150	150	150
MODEL P-300	S.P.M.	75	75	45	45
	LINER SIZE	5½		14	
No. 2	PRESSURE				
MODEL C-250	S.P.M.	UN			
	LINER SIZE				

W.L. F.C. 10.5 pH. 10.5 DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: Gel = 3 300# GENERAL:

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

SURVEYS: At Feet / Degrees

Weather / Temp. / Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
260	30	290	4½	36	9-4	07

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
2	7"	2¾	147.28		17.71		10

BIT

No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1C	12¼	F20	Reams		8-10	130			290	33½	1	300	55				

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT				
VISCOSITY				
GEL				

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1	PRESSURE				
MODEL	S.P.M.				
	LINER SIZE				
No. 2	PRESSURE				
MODEL	S.P.M.				
	LINER SIZE				

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

SURVEYS: At Feet / Degrees

Weather / Temp. / Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
290	17	307	2"	36	2 1-25	4-3

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
2	7"		147.28		17.71		24.39

BIT

No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1C	12¼	Hot Knife			8-10	130			296	34½	1	300	55				
2C	12¼	Hot Knife			10-	130	4-	1¾	11.	1¾	1	150	40		R	J	N

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT			9.4	9.3
VISCOSITY			52	54
GEL				

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1	PRESSURE			150	
MODEL P-300	S.P.M.			45	
	LINER SIZE	5½		14	
No. 2	PRESSURE				
MODEL C-250	S.P.M.				
	LINER SIZE				

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

SURVEYS: At Feet / Degrees

Weather / Temp. / Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

TIME START	TIME STOP	INTVL.	REMARKS
12 00	12 15	¼	Rig Service
12 15	8 00	7¾	Reaming
			FIRES ____ DRILLER'S SIGNATURE Al Nunn
8 00	8 15	¼	Rig Serv.
			Repair C-250 Pump (Pull Valve Seat + Rubber Head) (Pump Pressure Went 500)
8 15	11 30	3¼	
11 30	4 00	4½	Reaming
			FIRES ____ DRILLER'S SIGNATURE D. Hunter
4 00	4 15	¼	Rig Serv
4 15	5 00	¾	Reaming
5 00	5 30	½	Work on C-250 Pump
5 30	6 00	½	T.I.P. out
6 00	6 30	½	Change 17½" Reamers
			Weld 12¼" Bit to Reamer
			9 Run in W/ Conven.
			Reaming Under Gauge Hole 60'
8 00	10 15	2¼	
10 15	12 00	1¾	Reaming 12¼ to 17½" Hole
			FIRES ____ DRILLER'S SIGNATURE W.W. Conrad

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING ON BIT #

Boiler Operated 24 Hrs.

Crown-o-matic Chk'd. ____ Rig Savers Chk'd. ____ Kelly Cock Chk'd. ____ Fire Equip. Chk'd. ____

Fuel on Hand 12.01 a.m. ____ gals.
Fuel Rec'd Today (add) ____ gals.
TOTAL ____ gals.
Fuel on Hand 11.59 p.m. (deduct) ____ gals.
FUEL USED ____ gals.

CASING REPORT: RAN ____ JTS ____ CSG ____ TO ____ KB. USED ____ SAX ____ CEM ____ PLUS ____ % ____ PLUG DOWN ____ A.M. P.M.

CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND ____ TRANSFER #

DAYS FROM SPUD

EQUIPMENT CHANGES

TOTAL COMPANY TIME ____ HRS.

TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative ____

Approved by Toolpusher Al Nunn

CONSERVATION BOARD COPY

COM 40541

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCAT H.B. ET AL Willow A-39 — LSD. ___ SEC. ___ TWP. ___ RGE. ___ W. ___ — DATE Feb 29 1972

DIRECTIONS TO WELL ___ MAILING POINT ___ SHIPPING POINT ___ MILES MOVED ___ ROAD CONDITIONS ___ DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 AM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
0	80	80	7¾	23	—	—

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
	1	7"	2 7/8	22.		17.71		6

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	1-C	17½	Pilot Reamer			5.	130			80	7¾	1	250	64		R	W	N
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	92	93	93	9.1
VISCOSITY	75	75	74	60
GEL				
W.L.	F.C.	pH.		

PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1 PRESSURE	250	250	250	250
MODEL				
S.P.M.	64	64	64	64
LINER SIZE	5½	x	14	

PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 2 PRESSURE		ON CHAIN		
MODEL				
S.P.M.		SET		
LINER SIZE				

DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: Gel = 200# GENERAL: Sawdust = 20 Sx. Caustic = 50

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

SURVEYS: At Feet / Degrees

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
80	70	150	7¾	31		

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	3	7"	2 7/8	9039		1771		DOWN

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	12	17½	Pilot Reamer			5-8	130			150	15½	1	250	64		Reaming		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	9.2	9.2	9.2	9.2
VISCOSITY	66	65	87	89
GEL				
W.L.	F.C.	pH.		

PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1 PRESSURE	250			
MODEL				
S.P.M.	64			
LINER SIZE	5½	x	14	

PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.
No. 2 PRESSURE	ON	CHAIN		
MODEL				
S.P.M.		SET		
LINER SIZE	5½	X	12"	

DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: ___ GENERAL: ___

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

SURVEYS: At Feet / Degrees

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
150	50	200	5¾	36.	—	—

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	3	7"						
	2	6¼	2 7/8	1472	8	17.71		6

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	12	17½	Pilot Reamer			5-8	130			200	21¼	1	250	64		R	W	N
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT		9.3	9.4	9.4
VISCOSITY		91	85	80
GEL				
W.L.	F.C.	pH.		

PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1 PRESSURE			250	250
MODEL				
S.P.M.			64	64
LINER SIZE	5½	x	14	

PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 2 PRESSURE		ON CHAIN		
MODEL				
S.P.M.		SET		
LINER SIZE				

DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: 10 Sacks Soda Ash GENERAL: CHANGED HEAD RUBBER IN 5 Sacks Extra DER FILLWATER SIDE OF 300

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

SURVEYS: At Feet / Degrees

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING ON BIT # ___ Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd. ___ Rig Savers Chk'd. ___ Kelly Cock Chk'd. ___ Fire Equip. Chk'd. ___

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN ___ JTS CSG TO ___ KB. USED ___ SAX ___ CEM PLUG DOWN ___ A.M. P.M. PLUS ___ % CEMENT RETURNS - (YES/NO) ___

EQUIPMENT CHANGES ___

RENTAL EQUIPMENT ON HAND ___ TRANSFER # ___

DAYS FROM SPUD ___

TOTAL COMPANY TIME ___ HRS. TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative ___

Approved by Toolpusher Al Nowe

FIRES ___ DRILLER'S SIGNATURE Al Nowe

FIRES ___ DRILLER'S SIGNATURE Al Nowe

REMARKS	START	STOP	INTVL
Rig Service	12 00	12 15	1/4
Reaming	12 15	8 00	7¾
Rig Serv	8 00	8 15	1/4
Reaming	8 15	4 00	7¾
Rig Serv	4 00	4 15	1/4
Mix L.C.M. Try To Plug Washed Out Conductor BBL.	4 15	5 15	1
Reaming	5 15	10 30	5¼
Clean Out Pump	10 30	10 45	1/4
Reaming	10 45	11 00	1/4
Change Head In 0.300.	11 00	11 45	3/4
Reaming	11 45	12 00	1/4

CONSERVATION BOARD COPY

COM 48000

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION 16-B ETAL WILLOW A-39 — LSD. — SEC. — TWP. — RGE. — W. — DATE FEB 28 19 72

DIRECTIONS TO WELL — MAILING POINT — SHIPPING POINT — MILES MOVED — ROAD CONDITIONS — DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
172	154	326	7 3/4	35	1 94.07	1

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	3	7	2 7/8	147.25		177#		3
	2	6						

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	1B	12 1/4	Hot	Rebuilt		5-7	80	326	17 1/2	—	14 1/2	1	150	64		R	U	N

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	9.0	9.0	9.0	9.1
VISCOSITY	50	55	58	64
GEL				
W.L.	F.C.	pH.		

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1	PRESSURE	150	150	150	150
MODEL D 300	S.P.M.	64	64	64	64
	LINER SIZE	5 1/2 x	14		
No. 2	PRESSURE				
MODEL	S.P.M.				
	LINER SIZE				

DESILTER: Hours Op: — U. Flow: — O. Flow:

ADDITIVES: Gel = 3300# — GENERAL: Soda Ash = 200# — Caustic = 50# — Gyp = 1100# — Lime = 2050#

SURVEYS	At Feet	Degrees

MOTOR HOURS	Next Oil Change
1.	
2.	
3.	
4.	
5.	

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
326	200	526	7 3/4	38.M	5 345	23

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	3	7	2 7/4	14725		177#		25
	2	6						

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	1B	12 1/4	Hit	Rebuilt		5-8	120			526	73 1/4	1	400	64	—	REAMING		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	9.1	9.1	9.2	9.1
VISCOSITY	68	65	73	70
GEL				
W.L.	F.C.	pH.		

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1	PRESSURE	300	350	400	
MODEL D 300	S.P.M.	64	64	64	
	LINER SIZE	5 1/2	V	14	
No. 2	PRESSURE	ON MUD			
MODEL D 250	S.P.M.				
	LINER SIZE	5 1/2	F	10	

DESILTER: Hours Op: — U. Flow: — O. Flow:

ADDITIVES: — GENERAL:

SURVEYS	At Feet	Degrees

MOTOR HOURS	Next Oil Change
1.	
2.	
3.	
4.	
5.	

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
526	90	616	6 1/4	38.	7 439.	76

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	3	7	2 7/8	14725		177#		27
	2	6						

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	FR	12 1/4	Hit	Rebuilt		5-8M	120			616	29 1/2	1		64		1	2	7

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT	9.1	9.2	9.2	9.2
VISCOSITY	73	83	80	75
GEL				
W.L.	F.C.	pH.		

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1	PRESSURE			825	825
MODEL D 300	S.P.M.			64	64
	LINER SIZE	5 1/2 x	14		
No. 2	PRESSURE				
MODEL	S.P.M.				
	LINER SIZE				

DESILTER: Hours Op: — U. Flow: — O. Flow:

ADDITIVES: Gel = 2000# — GENERAL: Sawdust = 20 sks

SURVEYS	At Feet	Degrees

MOTOR HOURS	Next Oil Change
1.	
2.	
3.	
4.	
5.	

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

START	STOP	INTV
12 00	12 15	1/4
12 15	8 00	7 3/4
8 00	8 15	1/4
8 15	4 00	7 3/4
4 00	4 15	1/4
4 15	10 30	6 1/4
10 30	11 30	1
11 30	12 00	1/2

Rig Service
Reaming

FIRES — Al Nowe — DRILLER'S SIGNATURE

Rig Serv.
Reaming

FIRES — DRILLER'S SIGNATURE

Rig Serv
Reaming
Pull Out & Lay Down 14 Singles
Pick Up 17 1/2" Pilot Reamer.

FIRES — Al Nowe — DRILLER'S SIGNATURE

CONSERVATION & INDIAN AFFAIRS AND NORTHERN DEVELOPMENT — CONSERVATION ENGINEER — MAR 13 1972 — YELLOWKNIFE, N.W.T.

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT # — Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN — JTS — CSG — TO — KB. — USED — SAX — CEM — PLUS — % — PLUG DOWN — A.M. P.M. — CEMENT RETURNS (YES/NO)

RENTAL EQUIPMENT ON HAND — TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS. — TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative T Vulcan

Approved by Toolpusher Al Nowe

CONSERVATION BOARD COPY

COM 47999

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION B-ETAL WILLOW A-39 — LSD. — SEC. — TWP. — RGE. — W. — DATE FEB. 28 1972

DIRECTIONS TO WELL — MAILING POINT — SHIPPING POINT — MILES MOVED — ROAD CONDITIONS — DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
662	30	692	3 3/4	55	2 / 156.43	1

DRILL COLLARS: No. 3 / 14 — O.D. 7 / 6 — I.D. — Length 486.08 — Air Wt. — Sub. Wt. 170.5 — C.B. Ft. — Ft. up on Kelly 8

B.	No.	Size	Type	Jet/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	6	9 3/4	W07	3/16	39270	10.	130	30	3 3/4			1	450	64		R	U	NU
T.																		
S.																		

M.U.D	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT			87	87	No. 1 PRESSURE			450	450	No. 2 PRESSURE					1	
VISCOSITY			55	60	MODEL			64	64	MODEL					2	
GEL					S.P.M. 300					S.P.M. 250					3	
					LINER SIZE			5 1/2 x 14		LINER SIZE	Mud Kart					

W.L. — F.C. — pH. 10.5 — DESILTER: Hours Op: — U. Flow: — O. Flow:

ADDITIVES: Gel - 3500# — GENERAL:
Soda Ash - 100#
Caus. Soda - 50# — Sawdust 85

SURVEYS	At Feet	Degrees
	670	1°

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut (Feet)	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
692	24	716	2 3/4	55	3 / 188	10

DRILL COLLARS: No. 3 / 14 — O.D. 7" / 6" — I.D. — Length 486.08 — Air Wt. — Sub. Wt. 170.5 — C.B. Ft. — Ft. up on Kelly 16

B.	No.	Size	Type	Jet/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	6	9 3/4	OWT	3-16	38270	10	130	24	9 1/2			1	450	64		1W	1	1
T.	2	9 3/4	W07	3-16	39270	5-6	90			30	F	1	150	64		RUN		
S.																		

M.U.D	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	9.0	9.0			No. 1 PRESSURE	450	450			No. 2 PRESSURE	ON MUD ROLL				1	
VISCOSITY	55	55			MODEL	64	64			MODEL					2	
GEL					S.P.M. 300					S.P.M. 250					3	
					LINER SIZE	5 1/2	x 14			LINER SIZE	5 1/2	x 15				

W.L. — F.C. — pH. — DESILTER: Hours Op: — U. Flow: — O. Flow:

ADDITIVES: — GENERAL:

SURVEYS	At Feet	Degrees
	700	3/4

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut (Feet)	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
50	122	172	5 3/4	32.	—	—

DRILL COLLARS: No. 3 — O.D. 7" — I.D. 2 7/8 — Length 90.36 — Air Wt. 17.71 — Sub. Wt. — C.B. Ft. — Ft. up on Kelly 4

B.	No.	Size	Type	Jet/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1	15	12 1/4	Hole Opener			5	80			172	13 1/4	1	150	64		R	1	N
T.																		
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	9.1	9.2	9.2	9.0	No. 1 PRESSURE			150	150	No. 2 PRESSURE					1	
VISCOSITY	50	50	54	52	MODEL			64	64	MODEL					2	
GEL					S.P.M. 300					S.P.M.					3	
					LINER SIZE	5 1/2	x 14			LINER SIZE						

W.L. — F.C. — pH. — DESILTER: Hours Op: — U. Flow: — O. Flow:

ADDITIVES: Gel - 2400# — GENERAL:
Sawdust - 700#
½ Hyo - No Returns

SURVEYS	At Feet	Degrees

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut (Feet)	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING ON BIT # 6 — Boiler Operated 24 Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN — JTS — CSG — TO — KB. USED — SAX — CEM — PLUS — % — PLUG DOWN — A.M. P.M. — CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND — TRANSFER #

EQUIPMENT CHANGES — DAYS FROM SPUD

TOTAL COMPANY TIME HRS. — TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher Al Nairn

CONSERVATION BOARD COPY

COM 47998

REMARKS

	TIME START	TIME STOP	INTVL.
Mix Mud & Build Vol.	12 00	1 00	1
Jack Rig	1 00	2 45	1 3/4
Rig Service	2 45	3 00	1/4
Run In With Bit #6	3 00	4 00	1
Drill	4 00	4 30	1/2
Survey @ 670	4 30	4 45	1/4
Drill	4 45	8 00	3 1/4
FIRES — Al Nairn DRILLER'S SIGNATURE			
Drilling	8 00	9 15	1 1/4
Rig Serv	9 15	9 30	1/4
Survey	9 30	9 45	1/4
Drilling	9 45	11 15	1 1/2
Core Sample	11 15	11 30	1/4
Lay Down Drill Pipe + Tri Cut D.C.	11 30	1 00	1 1/2
Rig to Ream & Weld 8 3/4" Bit To 12 1/4" Hole Opener	1 00	3 00	2
Reaming	3 00	4 00	1
FIRES — L. Hunter DRILLER'S SIGNATURE			
Rig Serv	4 00	4 15	1/4
Reaming	4 15	4 30	1/4
Pick up Stablizer + Change To 12 1/4 Rubber	4 30	5 30	1
Pick up Shock Sub + Lay Down Jame (No XO Sub)	5 30	6 30	1
Reaming	6 30	12 00	5 1/2
FIRES — Al Nairn DRILLER'S SIGNATURE			

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION 8 ET AL Willow A39 — LSD. ___ SEC. ___ TWP. ___ RGE. ___ W. ___ — DATE Feb 26 19 72

DIRECTIONS TO WELL ___ — MAILING POINT ___ — SHIPPING POINT ___ — MILES MOVED ___ — ROAD CONDITIONS ___ — DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 A.M. TOUR 8 A.M. TO 4 P.M. TOUR 4 P.M. TO MIDNIGHT

TOUR MIDNIGHT TO 8 A.M.

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
576	31	607	5 3/4	54	9 4	0 7

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
	3	7						30
	14	6		486.08		1705		

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	4	8 3/4	C.O.V.	W-11	37758	10	130	117	24 1/2			1	450	64		4	2	1
T	5	8 3/4	HOT	3/16	22812	10	130	17	3			1	450	64		4	4	N
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	8.9	8.9		9.0
VISCOSITY	38	48		46
GEL				

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1	PRESSURE				450
	MODEL				D
	S.P.M.				64
	LINER SIZE				5 1/2 x 14

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 2	PRESSURE				
	MODEL				250
	S.P.M.				
	LINER SIZE				

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

W.L. ___ F.C. ___ pH. 10. DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

SURVEYS: At Feet ___ Degrees ___

Weather ___ Temp. ___ Water ___ Bbls.

ADDITIVES: Soda Ash - 25# GENERAL: ___

Hdl - 3402 150 Caustic

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

TIME START	TIME STOP	INTVL.
12 00	12 15	1/4
12 15	3 00	2 3/4
3 00	5 00	2
5 00	8 00	3

R.g Serv.
Tr. 1
Trip
Dr. 11

FIRES ___ DRILLER'S SIGNATURE E Zuk

TOUR 8 A.M. TO 4 P.M.

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
607	31	638	7 1/2	54	12 5 4 5	

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	3	7"						31
	14	6"	2 7/8	486.08		1705		

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	5	8 3/4	HOT	3-16	22812	10-12	130	48	10 1/2			1	450	64		DRILLING		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	9.1	9.0	8.8	8.9
VISCOSITY	40	38	49	47
GEL				

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1	PRESSURE	450	450	450	
	MODEL	D			
	S.P.M.	64	64	64	
	LINER SIZE	5 1/2	x	14	

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 2	PRESSURE	ON	CEKA-X		
	MODEL	C	JET		
	S.P.M.	250			
	LINER SIZE	5 1/2	x	15	

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

W.L. ___ F.C. ___ pH. 10 DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

SURVEYS: At Feet 635 Degrees 1/10

Weather ___ Temp. ___ Water ___ Bbls.

ADDITIVES: Gel - 1500 GENERAL: ___

Soda Ash 400# Lime 100#

Caustic - 50#

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES ___ DRILLER'S SIGNATURE E Zuk

TIME START	TIME STOP	INTVL.
8 00	8 15	1/4
8 15	3 00	6 3/4
3 00	3 15	1/4
3 15	7 00	3 3/4

Rig Serv
Drilling
Service
Drilling

TOUR 4 P.M. TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
638	24	662	3 3/4	54	12 5 4 5	

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	3	7"						
	14	6"	2 7/8	486.08		1705		

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	5	8 3/4	HOT	3-16	22812	10-11	130	72	14 1/4			1	450	64		5	2	I
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT	8.9	8.9	8.9	8.9
VISCOSITY	45	39	39	42
GEL				

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1	PRESSURE	450			
	MODEL	D			
	S.P.M.	64			
	LINER SIZE	5 1/2	x	14	

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 2	PRESSURE				
	MODEL	C			
	S.P.M.	250			
	LINER SIZE	5 1/2	x	15	

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

W.L. ___ F.C. ___ pH. ___ DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

SURVEYS: At Feet ___ Degrees ___

Weather ___ Temp. ___ Water ___ Bbls.

ADDITIVES: Gel - 1000 GENERAL: Weld Around Conductor Bit

Caustic - 100 Cement Out Cement Ouside Pulled With Lost Circ. Material From Inside.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES ___ DRILLER'S SIGNATURE

TIME START	TIME STOP	INTVL.
4 00	4 15	1/4
4 15	8 00	3 3/4
8 00	9 00	1
9 00		
9 00	9 45	3/4
9 45		
	12 00	2 1/4

Hoist To Cement Conductor Bit
~~Cement In Conductor Bit~~
Clean Out Around Cond. Pipe
& Mixing Lost Circ. Material
& Build Vol.

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT # 5 — Boiler Operated 24 Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12:01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11:59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN ___ JTS ___ CSG ___ TO ___ KB. USED ___ SAX ___ CEM ___ PLUS ___ % ___ PLUG DOWN ___ A.M. P.M.

CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND: ___ TRANSFER # ___

DAYS FROM SPUD: ___

EQUIPMENT CHANGES

TOTAL COMPANY TIME ___ HRS. — TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative T. Luther

Approved by Toolpusher Al Nowa

CONSERVATION BOARD COPY

COM 47997

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION H-S Ft. AL Wilson A-39 — LSD. ___ SEC. ___ TWP. ___ RGE. ___ W. ___ — DATE Dec 25th 1972

DIRECTIONS TO WELL ___ — MAILING POINT ___ — SHIPPING POINT ___ — MILES MOVED ___ — ROAD CONDITIONS ___ — DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 AM TOUR 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

TOUR MIDNIGHT TO 8 AM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
477	51	528	7½	60 M.		

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	ft. up on Kelly
	3	7"		90.36				
	14	6"		395.72		14.43		13.89

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	4	8¾	XDV	0 0 2	37858	6 to 10M	130	55	8½			1	175	64		R	U	N
I																		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	9.0	9.0	9.0	9.0
VISCOSITY	56	55	53	50
GEL				
W.L.	F.C.		pH.	10

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1	PRESSURE	175		175	
MODEL D 300	S.P.M.	64		64	
	LINER SIZE	5½ x 14		5½ x 14	
No. 2	PRESSURE				
MODEL C 250	S.P.M.	Tanks			
	LINER SIZE	5½ x 15			

DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: ___ GENERAL: ___

MOTOR HOURS	Next Oil Change
1	10
2	
3	
4	
5	
Weather	Water
Temp.	Bbls.

SURVEYS At Feet	Degrees
484	¾°
514	¾°

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

TIME START	STOP	INTVL
1200	1245	3/4
1245	100	1/4
100	530	4 1/2
530	545	1/4
545	800	2 1/4

Drill 83⅞' Pilot Hole
Survey @ Rig Scr
Drilling
Survey
Drilling

FIRES ___ DRILLER'S SIGNATURE ___

TOUR 8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
528	20	548	5¾	55		1

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	17	6		480.08			141.2	25

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	4	8¾	XDV	14	37858	7M	130	75	14½			1	250	64		1	1	1
I																		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	9.0	9.0	9.0	8.9
VISCOSITY	40	42	50	55
GEL				
W.L.	F.C.		pH.	

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1	PRESSURE	200	"	"	"
MODEL	S.P.M.	"	"	"	"
	LINER SIZE	5½	"	"	"
No. 2	PRESSURE	0	"	"	"
MODEL	S.P.M.	60	"	"	"
	LINER SIZE	5½	"	"	"

DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: Soda Ash 300 (5#) = 3200 GENERAL: ___

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	
Weather Fine	Water
Temp. 40's	Bbls.

SURVEYS At Feet	Degrees
501	1

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES ___ DRILLER'S SIGNATURE ___

TIME START	STOP	INTVL
800	815	¼
815	1000	1¾
1000	1145	1¾
1145	300	3¼
300	345	¼
345	400	¼

Drill
Circ
Tripping Drill Collar
Drill
Survey
Drill

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
548	28	576	7½	54	1	1272

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	3	4"						
	14	6"	2 3/8	438.08		1705		30

B/I/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	4	8¾	XDV	0 1 2	37858	10-12	150	103	21¾			1	250	64		Drilling		
I																		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT	9.2	9.1	9.2	9.1
VISCOSITY	40	41	49	48
GEL				
W.L.	F.C.		pH.	

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1	PRESSURE	250	250	250	
MODEL D 300	S.P.M.	64	64	64	
	LINER SIZE	5½	x	14	
No. 2	PRESSURE				
MODEL C 250	S.P.M.				
	LINER SIZE				

DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: Gel 1000# GENERAL: ___

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	
Weather	Water
Temp.	Bbls.

SURVEYS At Feet	Degrees
570	10

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES ___ DRILLER'S SIGNATURE ___

TIME START	STOP	INTVL
400	415	¼
415	1830	6¼
1830	1845	¼
1845	1200	1¼

Rig Serv
Drilling
Survey
Drilling

MAR 13 1973 — CONSERVATION BOARD — ALBERTA

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT # ___ Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (cdd)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN ___ JTS ___ CSG.

TO ___ KB. USED ___ SAX ___ CEM ___

PLUS ___ % PLUG DOWN ___ A.M. P.M.

CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND — TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME ___ HRS.

TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative ___

Approved by Toolpusher ___

CONSERVATION BOARD COPY

COM 47996

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG

RIG NO. 12 LOCATION H8 Ft. Hl Willow A-39 LSD. SEC. TWP. RGE. W. DATE Feb 24 1972

DIRECTIONS TO WELL

MAILING POINT

SHIPPING POINT

MILES MOVED

ROAD CONDITIONS

DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
366	50	416	7½	50M.		

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. wt.	C.B. Ft.	Ft. up on Kelly
	3	7⅞		90.36				10.10
	10	6		280.53		14.43		

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
I.	3	8¾	XDT	06	31560	5-25	130	86	13½			1	200	64		2	0	W
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	8.5		8.5	
VISCOSITY	55	54	57	55
GEL				

PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1 PRES-SURE	175		200	
MODEL S.P.M.	64		64	
LINER SIZE	5½ x 14			
No. 2 PRES-SURE				
MODEL S.P.M.	TRIPLEX			
LINER SIZE	5½ x 15			

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

W.L. F.C. pH 9.5 DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS	At Feet	Degrees
	370	¾°
	399	1°

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TO 4 PM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
416	38	454	7½	52M		

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
	10	6						0

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
I.	3	8¾	XDT	06	31560	5	130	17½	21			1	200	64		2	0	W
T.																		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	8.9	8.9	10	9.8
VISCOSITY	50	54	59	60
GEL				

PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1 PRES-SURE	175			
MODEL S.P.M.	64			
LINER SIZE	5½			
No. 2 PRES-SURE	0			
MODEL S.P.M.	64			
LINER SIZE	5½			

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

W.L. F.C. pH 11 DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: Gel & 1700# GENERAL:

Sawdust 10 sk. mica

Soda Ash

SURVEYS	At Feet	Degrees
	426	½

Weather Windy Temp. 30 Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 PM TO MIDNIGHT TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
454	23	477	5¾	56		

DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. wt.	C.B. Ft.	Ft. up on Kelly
	3	7⅞		90.36				7.21
	10	6		338.04		14.43		

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
I.	3	7⅞	XDT	06	90860	6	130	14.3	25¾			1	200	64		3	1	T
T.	11	6¾	DC	06	37552	6	130	4	1			1	200	64		2	1	T
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT			9.1	Tr.
VISCOSITY			55	Tr.
GEL			1	0

PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1 PRES-SURE			200	
MODEL S.P.M.			64	
LINER SIZE	5½ x 14			
No. 2 PRES-SURE				
MODEL S.P.M.	TRIPLEX			
LINER SIZE	5½ x 15			

MOTOR HOURS	Next Oil Change
1	
2	
3	
4	
5	

W.L. F.C. pH DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS	At Feet	Degrees
	454	¾
	477	1°

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

	START	STOP	INTVL.
Drill 8¾" Pilot Hole	12:00	12:30	½
Rig Ser. & Survey	12:30	12:45	¼
Drill	12:45	5:00	4¼
Survey	5:00	5:15	¼
Drill	5:15	8:00	2¾

FIRES

DRILLER'S SIGNATURE

Ream	8:00	8:30	½
Circ. & Cond.	8:30	10:00	1¾
Surveys	10:00	10:15	¼
Drill	10:15	4:00	5¾

FIRES

DRILLER'S SIGNATURE

Rig Serv. & Survey	4:00	4:30	½
Drill	4:30	9:15	4¾
Trip (Change Bent Stab)	9:15		
Rubber		11:00	1¾
Drill	11:00	12:00	1

FIRES

DRILLER'S SIGNATURE

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT # 4 Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly-Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT RAN JTS CSG

TO KB. USED SAX CEM

PLUS % PLUG DOWN. A.M. P.M.

CEMENT RETURNS (YES/NO)

DAYS FROM SPUD:

RENTAL EQUIPMENT ON HAND TRANSFER #

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher

CONSERVATION BOARD COPY

COM 47995

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION 4-3 Ft. NL Willow A-39 LSD. SEC. TWP. RGE. W. DATE Dec 23rd 1972

DAILY DRILLING LOG

DIRECTIONS TO WELL MAILING POINT SHIPPING POINT MILES MOVED ROAD CONDITIONS DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly
232.	53	285	7½	42				3	7"		90.36				
								6	6"		171.04		14.43.		31.83

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	2	8¾	X16	ORJ	28197	15/18	90	71	10½			1	1495	64				
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT	9.6	8.6	8.6	8.6	No. 1	PRESSURE	1475		1475		No. 2	PRESSURE					1	2'811
VISCOSITY	60	62	59	55	MODEL	S.P.M.	64		64		MODEL	S.P.M.	TAN	KS.			2	1
GEL					300	LINER SIZE	5½ x				350	LINER SIZE	5½	x 15			3	60
																	4	

W.L. F.C. pH. 10.0 DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: Gel 300 lb GENERAL: Bell Automatic Driller

Saw Dust 5 sx Started 1 AM.

Feb 23 172 Total Miles

SURVEYS At Feet	Degrees
279	1°

Weather Water Temp. Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
285	45	330	7½	~~44~~				10	6		311.18		1443		14.

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	2	8¾	X16	WT	58777	5000	130	116	18			1	1475			RG		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT	8.6	8.6	8.2	8.2	No. 1	PRESSURE	1775				No. 2	PRESSURE					1	
VISCOSITY	57	54	52	52	MODEL	S.P.M.	64				MODEL	S.P.M.					2	
GEL						LINER SIZE	5½					LINER SIZE					3	
																	4	

W.L. F.C. pH. 10 DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: ~~Gel 300 lb~~ GENERAL: Gel 300 lb Caust. c 100

~~Sawdust 5 sx~~ Sawdust 30 sks

Lime 100 lb

SURVEYS At Feet	Degrees

Weather Cloudy Temp. 100 Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
330	36	366	10½	49				5	7"		90.36				
								8	6"		225.86		114.43		5.59.

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	1	8¾	X16	WT	58197	5000	130	47	18½							3	1	E
T	3	7⅞	X16	WT	32860	8000	120	36	6			1	1475	64		12	W	D
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE				1775	No. 2	PRESSURE					1	
VISCOSITY	59	62	60	60	MODEL	S.P.M.		64		64	MODEL	S.P.M.	TAN	KS			2	
GEL					300	LINER SIZE					350	LINER SIZE	5½	15			3	
																	4	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: Caustic 35 sx GENERAL: 1000 lb Gel

SURVEYS At Feet	Degrees
344'	1°

Weather Windy + Cloudy Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

Crown-o-matic Chk'd. | Rig Savers Chk'd. | Kelly Cock Chk'd. | Fire Equip. Chk'd.

TOTCO RING ON BIT # Boiler Operated: 24 Hrs.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT RAN JTS CSG TO KB. USED SAX CEM PLUG DOWN A.M. P.M. PLUS %

CEMENT RETURNS - (YES/NO)

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND TRANSFER #

DAYS FROM SPUD:

TOTAL COMPANY TIME HRS. TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher Al Nowe

REMARKS

TIME START	TIME STOP	INTVL.	REMARKS
1200	330	3½	Drilling Pilot Hole.
330	345	¼	Rig Ser
345	745	4	Drilling Pilot Hole
745	800	1/4	Survey
			FIRES DRILLER'S SIGNATURE
800	815	¼	R.C Serv.
815	115	5	Drill 8¾ pilot Hole
115	130	¼	survey #1
130	400	2½	Drill
			FIRES DRILLER'S SIGNATURE
400	415	¼	Rig Serv
415	430	¼	mix mud & loss circ. Mat.
430	500	½	Drill
500	545	¾	Trip
545	715	1½	Drill
715	730	¼	survey
730	1200	4½	Drill
			FIRES DRILLER'S SIGNATURE

DEPARTMENTAL CONSERVATION BOARD ENGINEER ALBERTA OIL & GAS CONSERVATION BOARD JAN 13 1973

CONSERVATION BOARD COPY

COM 47994

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION 4-6 Ft. AL. Wilson A. 39 — LSD. ___ SEC. ___ TWP. ___ RGE. ___ W. ___ — DATE Feb 22nd 1972

DIRECTIONS TO WELL ___ MAILING POINT ___ SHIPPING POINT ___ MILES MOVED ___ ROAD CONDITIONS ___ DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
44	44	88	5 1/4	29		

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub Wt.	C.B. Ft.	Ft. up on Kelly
1			29.67		6.05		8
2	7"		603.02			15.82	44

BITS

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	1	5 3/4	C16	open	35004	2	130	88	10 3/4			1		64		R	a	w

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.
WEIGHT	8.5	8.5		
VISCOSITY	26.	35.		
GEL				

PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.
No. 1	PRESSURE				
	MODEL	0/300			
	S.P.M.	64		64	
	LINER SIZE	5 1/2 x			
No. 2	PRESSURE				
	MODEL	8/250			
	S.P.M.				
	LINER SIZE	5 1/2 x 12"			

MOTOR HOURS — Next Oil Change

1 ___ 2 ___ 3 ___

W.L. ___ F.C. ___ pH. ___ DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

SURVEYS

At Feet	Degrees
73	1°

4 ___ 5 ___ Weather ___ Temp. ___ Water ___ Bbls.

ADDITIVES: Caus-tic soda GENERAL: ___

Gel 1150 lb

SAWDUST 15 SKS

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
88	106	193	7 1/2	11 M		

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
6	6		177.79		141.43		

BITS

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	1	5 3/4	XIC	open	35004	5M	120	106	10 1/4			1	1400					

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.
WEIGHT	8.5	8.5	8.5	8.5
VISCOSITY	38.	35	36	35
GEL				

PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.
No. 1	PRESSURE	50	42	47	46
	MODEL				
	S.P.M.				
	LINER SIZE	5 1/4			
No. 2	PRESSURE				
	MODEL				
	S.P.M.				
	LINER SIZE				

MOTOR HOURS — Next Oil Change

1 ___ 2 ___ 3 ___

W.L. ___ F.C. ___ pH. ___ DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

SURVEYS

At Feet	Degrees
1118	1/4
1273	1/2

4 ___ 5 ___ Weather ___ Temp. ___ Water ___ Bbls.

ADDITIVES: GEL 4600 lbs CAUS-TIC 150 lbs SAWDUST 45 SKS GENERAL: SODA ASH 600 lbs

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles
193	39	232	6	40		

DRILL COLLARS

No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
3	7"		202.77		1443		76.10
4	6"						

BITS

B/T/S	No.	Size	Type	Jets/W.C.	Serial No.	Wt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	1	5 3/4	XIC	open	35004	8000	130	214	21 1/4			1	1400			2	2	1
T	2	5 3/4	XIC	open	38157	15	90	18	3									
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.
WEIGHT	8.5		8.5	8.5
VISCOSITY	34	39	55	60
GEL				

PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.
No. 1	PRESSURE				
	MODEL	0/300			
	S.P.M.				
	LINER SIZE				
No. 2	PRESSURE				
	MODEL	8/250			
	S.P.M.	52			
	LINER SIZE	5 1/2 x 12"			

MOTOR HOURS — Next Oil Change

1 ___ 2 ___ 3 ___

W.L. ___ F.C. ___ pH. ___ DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

SURVEYS

At Feet	Degrees
1320	1/4

4 ___ 5 ___ Weather ___ Temp. ___ Water ___ Bbls.

ADDITIVES: Gel 1000 lb GENERAL: ___

SAW DUST 5 SAX

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool
	1 1/8	HAMILTON	5 0ff									

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams:				
Blind Rams.				

TOTCO RING ON BIT # ___ Boiler Operated: ___ Hrs.

Crown-o-matic Chk'd. ___ Rig Savers Chk'd. ___ Kelly Cock Chk'd. ___ Fire Equip. Chk'd. ___

Fuel on Hand 12.01 a.m. ___ gals.
Fuel Rec'd Today (add) ___ gals.
TOTAL ___ gals.
Fuel on Hand 11.59 p.m. (deduct) ___ gals.
FUEL USED ___ gals.

CASING REPORT — RAN ___ JTS ___ CSG ___ TO ___ KB. USED ___ SAX ___ CEM ___ PLUS ___ % PLUG DOWN ___ A.M. P.M. ___ CEMENT RETURNS - (YES/NO) ___

RENTAL EQUIPMENT ON HAND — TRANSFER # ___ DAYS FROM SPUD: ___

EQUIPMENT CHANGES

TOTAL COMPANY TIME ___ HRS. TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative ___

Approved by Toolpusher ___

REMARKS

REMARKS	TIME START	TIME STOP	TIME INTVL.
Drill 8 3/4" Pilot Hole	1200	230	2 1/2
Pick up 1 D.C Bit Hole Reamer & Boot Stabilizer	230	315	3/4
Drill 8 3/4" Pilot Hole.	315	600	5 3/4
Trip Out Lay Down D.C	600	615	1/4
Mix mud & Survey	615	800	1 3/4
Trip out Lay Down Bit Sub Hole Reamer Pick up Bit Sub & Run.			
FIRES ___ DRILLER'S SIGNATURE ___			
Drill 8 3/4 Pilot Hole	800	1115	3 1/4
Rig Serv. Survey	1115	1130	1/4
Drill	1130	300	3 1/2
Survey	300	315	1/4
Drill	315	400	3/4
FIRES ___ DRILLER'S SIGNATURE ___			
Drill	400	700	3
Trip & Build vol.	700	730	1/2
Mix mud	730	830	1
Run 12 Jts 7" Csg	830	845	1/4
Drill Line 8 3/4 Pilot Hole	845	1115	2 1/2
Survey & Rig Serv.	1115	1130	1/4
Drill Pilot Hole	1130	1200	1/2
lost Circ at 2057 to 2114			
FIRES ___ DRILLER'S SIGNATURE ___			

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COM 47993

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION 165 FT NL Willow A-39 — LSD. ___ SEC. ___ TWP. ___ RGE. ___ W. ___ — DATE Dec 21st 1972

DIRECTIONS TO WELL ___ MAILING POINT ___ SHIPPING POINT ___ MILES MOVED ___ ROAD CONDITIONS ___ DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

Bit	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
E																		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.		pH.		DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES: 2500 lb Gel, 50 lb LMF					GENERAL:												5	

SURVEYS At Feet	Degrees

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TO 4 PM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

Bit	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
E																		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.		pH.		DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES: Caustic 100					GENERAL:												5	

SURVEYS At Feet	Degrees

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 PM TO MIDNIGHT TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly
0		44	5½	24				1			9.67		605		12

Bit	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B	1	634	XIG	0 0 0	38204	2	130					1	0	64				
E																		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT			8.5	8.5	No. 1	PRESSURE		0	0	0	No. 2	PRESSURE					1	
VISCOSITY			31	33	MODEL	S.P.M.		64	64	64	MODEL	S.P.M.	ON TANKS				2	
GEL					800	LINER SIZE		5½	x		C-350	LINER SIZE					3	
W.L.	F.C.		pH.		DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES: 50 lb Caustic					GENERAL:												5	

SURVEYS At Feet	Degrees

Weather ___ Temp. ___ Water ___ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING ON BIT # ___ Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd.		Fuel on Hand 12.01 a.m.	gals.
Rig Savers Chk'd.		Fuel Rec'd Today (add)	gals.
Kelly Cock Chk'd.		TOTAL	gals.
Fire Equip. Chk'd.		Fuel on Hand 11.59 p.m. (deduct)	gals.
		FUEL USED	gals.

CASING REPORT RAN ___ JTS CSG ___ TO ___ KB. USED ___ SAX ___ CEM. ___ PLUS ___ % ___ PLUG DOWN ___ A.M. P.M. ___ CEMENT RETURNS - (YES / NO)

RENTAL EQUIPMENT ON HAND ___ TRANSFER # ___ DAYS FROM SPUD: ___

EQUIPMENT CHANGES ___

TOTAL COMPANY TIME ___ HRS. TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative: T Falkner

Approved by Toolpusher: Al Noren

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COM 47992

REMARKS

	TIME START	TIME STOP	INTVL.
Drilling Rat Hole	12:00	2:30	2½
Mix Mud To Raise Vis	2:30	3:30	1½
Drilling Rat Hole	3:30	5:00	1½
Remove Collar Set Of Rat Hole	5:00	6:00	1
Thaw out Kelly Hose	6:00	8:00	2
FIRES ___ DRILLER'S SIGNATURE			
Thaw out Standpipe - Kelly	8:00	9:00	1
Rig Rat Hole	9:00	10:30	1½
Welding Mud Line	10:30	12:00	1½
Work on Pumps	12:00	1:30	1½
Reaming Rathole	1:30	3:30	2
Push Rat Hole In	3:30	4:00	½
FIRES ___ DRILLER'S SIGNATURE			
Push Rat Hole In	4:00	6:30	2½
Pick up Short Collar & Spud	6:30		
Drill 8¾" Pilot Hole		12:00	5½
FIRES ___ DRILLER'S SIGNATURE			

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG

RIG NO. 12 LOCATION 10 Ft NE Al Willow A-39. LSD. SEC. TWP. RGE. W. DATE FEB 20 19 72

DIRECTIONS TO WELL

MAILING POINT SHIPPING POINT MILES MOVED ROAD CONDITIONS DAYS FROM SPUD

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	11
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	8
GEL					LINER SIZE					LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:						4	
ADDITIVES:			GENERAL:												5	

SURVEYS At Feet	Degrees

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
T.																		
S.																		

TOUR 8 AM TO 4 PM

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:						4	
ADDITIVES:	Gel 230#		GENERAL:												5	

SURVEYS At Feet	Degrees

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
T.																		
S.																		

TOUR 4 PM TO MIDNIGHT

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:						4	
ADDITIVES:			GENERAL:												5	

SURVEYS At Feet	Degrees

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

TOTCO RING ON BIT # Boiler Operated: 24 Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT RAN JTS CSG

TO KB. USED SAX CEM

PLUS % PLUG DOWN A.M. P.M.

CEMENT RETURNS - (YES/NO)

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND

DAYS FROM SPUD:

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative T. Tolpan

Approved by Toolpusher Al Nourse

CONSERVATION BOARD COPY

COM 47991

REMARKS

TIME START	STOP	INTVL.	REMARKS
1700	2000	2.	Drilling Rat Hole
2000			Trying To Clean out around Conductor BBL To Pump Cement.
			Rigging up To Pump into Conductor BBL - Jet Cellar
			Pump Water Truck To Pump Water out of Conductor BBL.
	8:00	6	FIRES DRILLER'S SIGNATURE
800	1000	2	Cement Conductor Pipe
1000	400	6	W.O.C & mix mud.
			35 SK Cement For Conductor pipe
			FIRES WITH 2% CaCl. DRILLER'S SIGNATURE
400	600	2.	W.O.C
600	1200	6	Drill Rat Hole
			FIRES DRILLER'S SIGNATURE

TRANSFER #

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION B. Ed Al Willow A.39. — LSD. ___ SEC. ___ TWP. ___ RGE. ___ W. ___ — DATE FEB 19 19 72

DIRECTIONS TO WELL ___ MAILING POINT ___ SHIPPING POINT ___ MILES MOVED ___ ROAD CONDITIONS ___ DAYS FROM SPUD ___

TOUR MIDNIGHT TO 8 A.M.

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B.	No.	Size	Type	Jet/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRES-SURE					No. 2 PRES-SURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	50
GEL					LINER SIZE					LINER SIZE					3	

W.L. ___ F.C. ___ pH. ___ DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: ___ GENERAL: ___

SURVEYS — At Feet / Degrees: 4 1/4

Weather ___ Water ___ Temp. ___ Bbls. ___

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 A.M. TO 4 P.M. TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B.	No.	Size	Type	Jet/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
T.																		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRES-SURE					No. 2 PRES-SURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. ___ F.C. ___ pH. ___ DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: ___ GENERAL: ___

SURVEYS — At Feet / Degrees: 4 ___

Weather ___ Water ___ Temp. ___ Bbls. ___

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 P.M. TO MIDNIGHT TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B.	No.	Size	Type	Jet/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
T.																		
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRES-SURE					No. 2 PRES-SURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. ___ F.C. ___ pH. ___ DESILTER: Hours Op: ___ U. Flow: ___ O. Flow: ___

ADDITIVES: ___ GENERAL: ___

SURVEYS — At Feet / Degrees: 4 ___

Weather ___ Water ___ Temp. ___ Bbls. ___

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams				
Blind Rams				

Crown-o-matic Chk'd. ___ Rig Savers Chk'd. ___ Kelly Cock Chk'd. ___ Fire Equip. Chk'd. ___

TOICO RING ON BIT # ___ Boiler Operated: 24 Hrs.

Fuel on Hand 12.01 a.m.		gals.
Fuel Rec'd Today (add)		gals.
TOTAL		gals.
Fuel on Hand 11.59 p.m. (deduct)		gals.
FUEL USED		gals.

CASING REPORT — RAN ___ JTS ___ CSG. ___ TO ___ KB. USED ___ SAX ___ CEM ___ PLUS ___ % ___ PLUG DOWN ___ A.M. P.M. ___ CEMENT RETURNS - (YES/NO) ___

RENTAL EQUIPMENT ON HAND ___ TRANSFER # ___

DAYS FROM SPUD: ___

EQUIPMENT CHANGES ___

TOTAL COMPANY TIME ___ HRS. TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative ___

Approved by Toolpusher Al Noren

REMARKS	TIME START	TIME STOP	TIME INTVL
Drill Conductor Hole	1700	8:00	8
FIRES ___ DRILLER'S SIGNATURE ___			
Drill Conductor Hole	8:00	10:00	2
Pick up to drill Rat Hole	10:00		
Drill Rat Hole		4:00	6
FIRES ___ DRILLER'S SIGNATURE ___			
Drill Rat Hole	4:00	12:00	8
FIRES ___ DRILLER'S SIGNATURE ___			

ALBERTA ENERGY RESOURCES CONSERVATION BOARD — RECEIVED — SEP 13 1972 — CALGARY, ALBERTA

CONSERVATION BOARD COPY

COM 47990

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION 16-8 Et Ar. Willow A-39 LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE Feb 18 19 72

DAILY DRILLING LOG
DIRECTIONS TO WELL ____ MAILING POINT ____ SHIPPING POINT ____ MILES MOVED ____ ROAD CONDITIONS ____ DAYS FROM SPUD ____

TOUR MIDNIGHT TO 8 A.M. TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
T.																		
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. ____ F.C. ____ pH. ____ DESILTER: Hours Op: ____ U. Flow: ____ O. Flow: ____

ADDITIVES: ____ GENERAL: ____

SURVEYS: At Feet | Degrees

Weather ____ Temp. ____ Water ____ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 A.M. TOUR 4 P.M.

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
T.																		
T.																		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. ____ F.C. ____ pH. ____ DESILTER: Hours Op: ____ U. Flow: ____ O. Flow: ____

ADDITIVES: ____ GENERAL: ____

SURVEYS: At Feet | Degrees

Weather ____ Temp. ____ Water ____ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 P.M. TOUR 4 P.M. TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
T.																		
T.																		
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. ____ F.C. ____ pH. ____ DESILTER: Hours Op: ____ U. Flow: ____ O. Flow: ____

ADDITIVES: ____ GENERAL: ____

SURVEYS: At Feet | Degrees

Weather ____ Temp. ____ Water ____ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Size	Type	Pressure	Packing & Seal Inspected Date	Crown-o-matic Chk'd.
Hydril					Rig Savers Chk'd.
Pipe Rams.					Kelly Cock Chk'd.
Blind Rams.					Fire Equip. Chk'd.
TOTCO RING ON BIT #		Boiler		Hrs.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT RAN ____ JTS ____ CSG ____ TO ____ KB. USED ____ SAX ____ CEM ____ PLUS ____ % ____ PLUG DOWN ____ A.M. P.M. ____ CEMENT RETURNS - (YES/NO) ____

REMARKS	TIME START	TIME STOP	TIME INTVL.
Rig up To Dig Conductor Hole	12:00	8:00	8
Drill Conductor Hole	8:00		

FIRES ____ DRILLER'S SIGNATURE ____

REMARKS	TIME START	TIME STOP	TIME INTVL.
Drill Conductor Hole	5:00	11:00	

FIRES ____ DRILLER'S SIGNATURE ____

FIRES ____ DRILLER'S SIGNATURE ____

RENTAL EQUIPMENT ON HAND ____ TRANSFER # ____

DAYS FROM SPUD: ____

EQUIPMENT CHANGES ____

TOTAL COMPANY TIME ____ HRS. TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative ____

Approved by Toolpusher Al Nowe

CONSERVATION BOARD COPY

COM 47989

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. ____ LOCATION ____ LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE Feb 17 1972

DIRECTIONS TO WELL ____ MAILING POINT ____ SHIPPING POINT ____ MILES MOVED ____ ROAD CONDITIONS ____ DAYS FROM SPUD ____

TOUR MIDNIGHT TO 8 AM TOUR: 8 AM TO 4 PM TOUR: 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:					GENERAL:												5	
																	Weather	Water
																	Temp.	Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS: At Feet | Degrees

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:					GENERAL:												5	
																	Weather	Water
																	Temp.	Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS: At Feet | Degrees

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:					GENERAL:												5	
																	Weather	Water
																	Temp.	Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS: At Feet | Degrees

B.O.P.	Size	Elastic	Time	Pipe Rams	Packing & Seat Inspected Date
Hydril					
Pipe Rams.					
Blind Rams.					

TOTCO RING ON BIT # ____ Hrs. ____

Crown-o-matic Chk'd. ____ Rig Savers Chk'd. ____ Kelly Cock Chk'd. ____ Fire Equip. Chk'd. ____

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN ____ JTS ____ CSG ____ TO ____ KB. USED ____ SAX ____ CEM ____ PLUS ____ % ____ PLUG DOWN ____ A.M. P.M. ____ CEMENT RETURNS - (YES/NO) ____

EQUIPMENT CHANGES

REMARKS

TIME

START	STOP	INTVL.

Rig up.

FIRES ____ DRILLER'S SIGNATURE

Rig up

FIRES ____ DRILLER'S SIGNATURE

Rigging up Change Hy Ril on D 300 Raise Derrick Rig up Floor.

FIRES ____ DRILLER'S SIGNATURE

RENTAL EQUIPMENT ON HAND ____ TRANSFER # ____

DAYS FROM SPUD: ____

TOTAL COMPANY TIME ____ HRS. ____ TOTAL CONTRACTOR'S TIME ____ HRS. ____

Approved by Operator's Representative ____

Approved by Toolpusher Al Nourse

CONSERVATION BOARD COPY

COM 47988

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION _____ LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE FEB 16 19 22

DAILY DRILLING LOG

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TOUR 4 PM TO

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Packing & Seal Inspected Date
Hydril			
Pipe Rams.			
Blind Rams.			

TOTCO RING ON BIT Bottom Hole Operated: Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN ____ JTS ____ CSG ____ TO ____ KB. USED ____ SAX ____ CEM ____ PLUS ____ % PLUG DOWN ____ A.M. P.M.

CEMENT RETURNS - (YES/NO)

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD:

TOTAL COMPANY TIME ____ HRS.

TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative

Approved by Toolpusher

REMARKS

Rigging up Slotting Buildings.

FIRES

DRILLER'S SIGNATURE

Rigging up

FIRES

DRILLER'S SIGNATURE

R.J. up

FIRES

DRILLER'S SIGNATURE

TIME	START	STOP	INTVL.

CONSERVATION BOARD COPY

COM 47987

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG

RIG NO. 12 LOCATION _____ LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE Feb 15 19 74

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1																		
2																		
STS																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees — 4 — 5

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TO 4 PM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1																		
2																		
STS																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees — 4 — 5

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 PM TO MIDNIGHT TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1																		
2																		
STS																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees — 4 — 5

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Packing & Seal Inspected Date
Hydril		
Pipe Rams.		
Blind Rams.		
TOTCO RING ON BIT	Bit Proposed	Boiler Operated: Hrs.

Crown-o-matic Chk'd. | Rig Savers Chk'd. | Kelly Cock Chk'd. | Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m.		gals.
Fuel Rec'd Today (add)		gals.
TOTAL		gals.
Fuel on Hand 11.59 p.m. (deduct)		gals.
FUEL USED		gals.

CASING REPORT RAN JTS CSG TO KB. USED SAX CEM PLUS % PLUG DOWN A.M. P.M. CEMENT RETURNS (YES/NO)

EQUIPMENT CHANGES

REMARKS

TIME: START / STOP / INTVL.

UNLOAD TRUCKS @ NEW LEASE
DRILL PIPE + D.C.S.

FIRES _____ DRILLER'S SIGNATURE

UNLOAD TRUCKS SET PIPE RACKS. UNLOAD PIPE & DCs FOR RIG MUD TANK.

FIRES _____ DRILLER'S SIGNATURE

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD:

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher Al Noren

CONSERVATION BOARD COPY

COM 47986

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION _____ LSD ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE Feb. 14 1922

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1																		
2																		
3																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees — 4 — 5

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1																		
2																		
3																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees — 4 — 5

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 PM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BIT	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
1																		
2																		
3																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees — 4 — 5

Weather Temp. Water Bbls.

Drilling Line	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Pressure	Packing & Seal Inspected Date
Hydril			
Pipe Rams			
Blind Rams			

TOOL RING GASKET — Power Operated: Hrs.

Crown-o-matic Chk'd. | Rig Savers Chk'd. | Kelly Cock Chk'd. | Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN ____ JTS ____ CSG ____ TO ____ KB. USED ____ SAX ____ CEM ____ PLUS ____ % PLUG DOWN ____ A.M. P.M.

CEMENT RETURNS - (YES/NO)

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND — TRANSFER #

DAYS FROM SPUD:

TOTAL COMPANY TIME ____ HRS. — TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative

Approved by Toolpusher Al Nour

REMARKS

Move Drill Pipe
+ Pipe Rakes
From old Lease

FIRES _____ DRILLER'S SIGNATURE

Trench To do Lease
Load out Drill Pipe

FIRES _____ DRILLER'S SIGNATURE

TIME	START	STOP	INTVL.

CONSERVATION BOARD COPY

COM 47985

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCAT — LSD. — SEC. — TWP. — RGE. — W. — DATE FEB. 13 — 1972

DIRECTIONS TO WELL — MAILING POINT — SHIPPING POINT — MILES MOVED — ROAD CONDITIONS — DAYS FROM SPUD

TOUR MIDNIGHT TO 8 A.M. TOUR 8 A.M. TO 4 P.M. TOUR 4 P.M. TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
1																		
2																		
3																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. — F.C. — pH. — DESILTER: Hours Op: — U. Flow: — O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: — GENERAL:

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
1																		
2																		
3																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. — F.C. — pH. — DESILTER: Hours Op: — U. Flow: — O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: — GENERAL:

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
1																		
2																		
3																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. — F.C. — pH. — DESILTER: Hours Op: — U. Flow: — O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: — GENERAL:

Weather — Temp. — Water — Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Test	Chg'd. Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Ram				
Blind Rams				

TOTCO RING ON DRILL COLLAR Used: — Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN — JTS — CSG — TO — KB. USED — SAX — CEM — PLUS — % — PLUG DOWN — A.M. P.M. — CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND — TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS. — TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher

CONSERVATION BOARD COPY

COM 47984

REMARKS

Lay matting & Slat Sub.

FIRES — DRILLER'S SIGNATURE

B. Hunter

Move Up Hill To New Lease. Unload Sub & Derrick

FIRES — DRILLER'S SIGNATURE

Lay matting & Slat Subs

FIRES — DRILLER'S SIGNATURE

A. Wolfgang

TIME	START	STOP	INTVL.

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION _____ LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE Feb. 12 1972

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR - MIDNIGHT TO 8 A.M. — 8 A.M. TO 4 P.M. — 4 P.M. TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
I.																		
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:					GENERAL:												5	
																	Weather / Temp.	Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut	Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

REMARKS

Fuel up Camp + Cat Celler at New Lease

FIRES _____ DRILLER'S SIGNATURE

TRAVEL TO OLD LEASE. LOAD. SUB, & DERRICK

FIRES _____ DRILLER'S SIGNATURE

RIG CAMP AT NEW HOUSE

FIRES _____ DRILLER'S SIGNATURE

TIME

START	STOP	INTVL.

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
I.																		
T.																		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:					GENERAL:												5	
																	Weather / Temp.	Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut	Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
I.																		
T.																		
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:					GENERAL:												5	
																	Weather / Temp.	Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut	Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT? _____ Bottom Operated: _____ Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN ____ JTS ____ CSG ____ TO ____ KB. USED ____ SAX ____ CEM ____ PLUS ____ % ____ PLUG DOWN ____ A.M. P.M. ____ CEMENT RETURNS - (YES / NO)

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME ____ HRS.

TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative

Approved by Toolpusher Al Nowm

CONSERVATION BOARD COPY

COM 47983

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION _____ LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE FEB. 11 19 72

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR MIDNIGHT TO 8 AM TOUR 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
I.																		
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. _____ F.C. _____ pH. _____ DESILTER: Hours Op: _____ U. Flow: _____ O. Flow: _____

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: _____ GENERAL: _____

Weather _____ Temp. _____ Water _____ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES _____ DRILLER'S SIGNATURE _____

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
I.																		
T.																		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. _____ F.C. _____ pH. _____ DESILTER: Hours Op: _____ U. Flow: _____ O. Flow: _____

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: _____ GENERAL: _____

Weather _____ Temp. _____ Water _____ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES _____ DRILLER'S SIGNATURE _____

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
I.																		
T.																		
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. _____ F.C. _____ pH. _____ DESILTER: Hours Op: _____ U. Flow: _____ O. Flow: _____

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: _____ GENERAL: _____

Weather _____ Temp. _____ Water _____ Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip or Cut Feet	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES _____ DRILLER'S SIGNATURE _____

B.O.P.	Tested	Elapsed Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT # _____ Boiler Operated: _____ Hrs.

Crown-o-matic Chk'd.		
Rig Savers Chk'd.		
Kelly Cock Chk'd.		
Fire Equip. Chk'd.		

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN ____ JTS ____ CSG ____ TO ____ KB. USED ____ SAX ____ CEM ____ PLUS ____ % ____ PLUG DOWN ____ A.M. P.M. ____ CEMENT RETURNS - (YES / NO)

RENTAL EQUIPMENT ON HAND — TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME ____ HRS. — TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative

Approved by Toolpusher Al Noren

REMARKS	TIME START	TIME STOP	TIME INTVL.
TRAVEL TO OLD LEASE & BACK, MOVING RIG			

CONSERVATION BOARD COPY

COM 47982

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG — RIG NO. 12 — LOCATION _____ LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE FEB. 10 72

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR MIDNIGHT TO 8 AM TOUR 8 AM TO 4 PM TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:			GENERAL:														5	
																	Weather	Water
																	Temp.	Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:			GENERAL:														5	
																	Weather	Water
																	Temp.	Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	
W.L.	F.C.	pH.			DESILTER: Hours Op:		U. Flow:		O. Flow:								4	
ADDITIVES:			GENERAL:														5	
																	Weather	Water
																	Temp.	Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Feet Slip or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

SURVEYS

At Feet	Degrees

REMARKS

TRAVEL TO OLD LEASE & LOAD TRUCKS

TIME	START	STOP	INTVL.

FIRES _____ DRILLER'S SIGNATURE _____

B.O.P.	Tested	Stabilized Time	Pressure	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				
TOTCO RING ON BIT		Operated		Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN ____ JTS ____ CSG

TO ____ KB. USED ____ SAX ____ CEM

PLUS ____ % PLUG DOWN ____ A.M. P.M.

CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND — TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME ____ HRS. — TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative

Approved by Toolpusher Al Nova

CONSERVATION BOARD COPY

COM 17981

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG

RIG NO. 12 LOCATION _____ LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE FEB. 9 19 72

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR MIDNIGHT TO 6 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather / Temp. — Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES _____ DRILLER'S SIGNATURE _____

TOUR 6 AM TO 4 PM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather / Temp. — Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES _____ DRILLER'S SIGNATURE _____

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

BITS	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather / Temp. — Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES _____ DRILLER'S SIGNATURE _____

REMARKS	TIME START	TIME STOP	TIME INTVL.
Rig Up Camp.			

B.O.P.	Tested	Elapsed Worktime	Packing & Seal Inspected Date
Hydril			
Pipe Rams			
Blind Rams			

TOTCO RING ON BIT # _____ Boiler Inspected: _____ Hrs.

Crown-o-matic Chk'd. / Rig Savers Chk'd. / Kelly Cock Chk'd. / Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN ___ JTS CSG — TO ___ KB. USED ___ SAX ___ CEM — PLUS ___ % — PLUG DOWN ___ A.M. P.M. — CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME ___ HRS. — TOTAL CONTRACTOR'S TIME ___ HRS.

Approved by Operator's Representative

Approved by Toolpusher Al Noren

CONSERVATION BOARD COPY

COM 47380

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION _____ LSD ____ SEC ____ TWP ____ RGE ____ W ____ DATE FEB. 8 1972

DAILY DRILLING LOG

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES _____ DRILLER'S SIGNATURE _____

TOUR 8 AM TO 4 PM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES _____ DRILLER'S SIGNATURE _____

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

FIRES _____ DRILLER'S SIGNATURE _____

REMARKS	TIME START	TIME STOP	TIME INTVL.
LOAD OUT CAMP			
TRAVEL TO NEW LEASE			
START LIGHT PLANT			

	Tested	Elapsed Time	Packing & Seal Inspected Date
B.O.P.			
Hydril			
Pipe Rams.			
Blind Rams.			
TOTCO RING ON BIT #	Boiler Operated:		Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT RAN JTS CSG

TO KB. USED SAX CEM

PLUS % PLUG DOWN A.M. P.M.

CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND

TRANSFER #

DAYS FROM SPUD:

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

EQUIPMENT CHANGES

Approved by Operator's Representative

Approved by Toolpusher Al Nourse

CONSERVATION BOARD COPY

COM 47979

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION _____ LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE FEB 7 1922

DAILY DRILLING LOG

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR MIDNIGHT TO 8 A.M. TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
I.																		
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees

4 5

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 A.M. TO 4 P.M. TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
I.																		
T.																		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees

4 5

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

4 P.M. TO MIDNIGHT TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

B.	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
I.																		
T.																		
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRESSURE					No. 2	PRESSURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees

4 5

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Packing & Seal Inspected Date
Hydril			
Pipe Rams.			
Blind Rams.			

TOTCO RING ON BIT: Driller Operated: Hrs.

Crown-o-matic Chk'd.	
Rig Savers Chk'd.	
Kelly Cock Chk'd.	
Fire Equip. Chk'd.	

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (doduct)	gals.
FUEL USED	gals.

CASING REPORT RAN JTS CSG TO KB. USED SAX CEM PLUS % PLUG DOWN A.M. P.M. CEMENT RETURNS - (YES/NO)

RENTAL EQUIPMENT ON HAND TRANSFER #

DAYS FROM SPUD:

EQUIPMENT CHANGES

TOTAL COMPANY TIME HRS. TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher Al Noren

REMARKS

TIME START	STOP	INTVL.

FIRES DRILLER'S SIGNATURE

TRAVEL To Rig
CLEAN OUT CAMP
& Rig

FIRES DRILLER'S SIGNATURE

FIRES DRILLER'S SIGNATURE

CONSERVATION BOARD COPY

COM 47978

COMMONWEALTH DRILLING (WESTERN) LTD. RIG NO. 12 LOCATION _____ LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE Feb. 6 1972

DAILY DRILLING LOG

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR MIDNIGHT TO 8 AM TOUR

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

M.U.D	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP		12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather / Temp. / Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet	Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

8 AM TO 4 PM

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

M.U.D	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP		8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather / Temp. / Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet	Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

TOUR 4 PM TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B																		
I																		
T																		
S																		

M.U.D	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP		4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1	PRES-SURE					No. 2	PRES-SURE					1	
VISCOSITY					MODEL	S.P.M.					MODEL	S.P.M.					2	
GEL						LINER SIZE						LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

SURVEYS: At Feet / Degrees — 4 — 5

ADDITIVES: GENERAL:

Weather / Temp. / Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip	Feet	Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Elapsed Time	Pres-	Packing & Seal Inspected Date
Hydril				
Pipe Rams.				
Blind Rams.				

TOTCO RING ON BIT # _____ Boiler Operated: _____ Hrs.

Crown-o-matic Chk'd. _____ Rig Savers Chk'd. _____ Kelly Cock Chk'd. _____ Fire Equip. Chk'd. _____

Fuel on Hand 12.01 a.m. _____ gals.
Fuel Rec'd Today (add) _____ gals.
TOTAL _____ gals.
Fuel on Hand 11.59 p.m. (deduct) _____ gals.
FUEL USED _____ gals.

CASING REPORT — RAN ____ JTS ____ CSG ____ TO ____ KB. USED ____ SAX ____ CEM ____ PLUS ____ % PLUG DOWN ____ A.M. P.M.

CEMENT RETURNS - (YES/NO)

REMARKS

Travel To Rig

TIME	START	STOP	INTVL.

FIRES _____ DRILLER'S SIGNATURE

RENTAL EQUIPMENT ON HAND — TRANSFER #

DAYS FROM SPUD: _____

EQUIPMENT CHANGES

TOTAL COMPANY TIME ____ HRS. TOTAL CONTRACTOR'S TIME ____ HRS.

Approved by Operator's Representative _____

Approved by Toolpusher Al Nova

CONSERVATION BOARD COPY

COM 47977

COMMONWEALTH DRILLING (WESTERN) LTD.

DAILY DRILLING LOG

RIG NO. 12 LOCATION _____ LSD. ____ SEC. ____ TWP. ____ RGE. ____ W. ____ DATE FEB. 5 19 72

DIRECTIONS TO WELL _____ MAILING POINT _____ SHIPPING POINT _____ MILES MOVED _____ ROAD CONDITIONS _____ DAYS FROM SPUD _____

TOUR MIDNIGHT TO 8 A.M. TOUR 8 A.M. TO 4 P.M. TOUR 4 P.M. TO MIDNIGHT

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
T.																		
S.																		

MUD	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	PUMP	12 mn.	2 a.m.	4 a.m.	6 a.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees — 4 — 5

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
T.																		
S.																		

MUD	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	PUMP	8 a.m.	10 a.m.	12 noon	2 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. F.C. pH. DESILTER, Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees — 4 — 5

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

From	Footage	To	Hrs. on Bottom	Wt. Drill Pipe (1000 lbs.)	Stands	Singles	DRILL COLLARS	No.	O.D.	I.D.	Length	Air Wt.	Sub. Wt.	C.B. Ft.	Ft. up on Kelly

	No.	Size	Type	Jets/W.C.	Serial No.	Wgt.	R.P.M.	Drilled or Cored	Hrs.	Reamed	Hrs.	Pump No.	Pump Pressure	S.P.M.	Table Torque	T.	B.	G.
B.																		
T.																		
S.																		

MUD	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	PUMP	4 p.m.	6 p.m.	8 p.m.	10 p.m.	MOTOR HOURS	Next Oil Change
WEIGHT					No. 1 PRESSURE					No. 2 PRESSURE					1	
VISCOSITY					MODEL S.P.M.					MODEL S.P.M.					2	
GEL					LINER SIZE					LINER SIZE					3	

W.L. F.C. pH. DESILTER: Hours Op: U. Flow: O. Flow:

ADDITIVES: GENERAL:

SURVEYS: At Feet / Degrees — 4 — 5

Weather Temp. Water Bbls.

Drilling Line Record	Size	Make	Serial No.	No. Lines	Trips	Ton Miles	Total Miles	Slip Feet or Cut	At Miles	Date Slip or Cut	Next Slip	Ft. Left on Spool

B.O.P.	Tested	Packing & Seal Inspected Date
Hydril		
Pipe Rams.		
Blind Rams.		

TOTCO RING ON BIT # Operated: Hrs.

Crown-o-matic Chk'd. | Rig Savers Chk'd. | Kelly Cock Chk'd. | Fire Equip. Chk'd.

Fuel on Hand 12.01 a.m.	gals.
Fuel Rec'd Today (add)	gals.
TOTAL	gals.
Fuel on Hand 11.59 p.m. (deduct)	gals.
FUEL USED	gals.

CASING REPORT — RAN JTS CSG — TO KB. USED SAX CEM — PLUS % PLUG DOWN A.M. P.M.

CEMENT RETURNS - (YES/NO)

DAYS FROM SPUD:

EQUIPMENT CHANGES

RENTAL EQUIPMENT ON HAND

TRANSFER #

TOTAL COMPANY TIME HRS.

TOTAL CONTRACTOR'S TIME HRS.

Approved by Operator's Representative

Approved by Toolpusher A. Noren

REMARKS

TIME	START	STOP	INTVL.

TRAVEL To Rig

FIRES DRILLER'S SIGNATURE

FIRES DRILLER'S SIGNATURE

FIRES DRILLER'S SIGNATURE

CONSERVATION BOARD COPY

COM 47976

52 - 88AX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE APR. 1ST / 12

WELL NAME H. B. ET. AL. WILLOW A-39
CONTRACTOR COMMONWEALTH
RIG NO. 12
TYPE RIG U 34-D
TOOL PUSHER
LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T. Finlay

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 2710 PROGRESS END	START 2710 PROGRESS END	START 2710 PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	800	ONL Down ON

DRILLER NO. HELPERS

---

8 A.M. TO 4 P.M.

START 2710 PROGRESS END

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

NO.	FROM	TO	RECOVERED	FORMATION

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
800	130	WAIT on DOWELL CEMENTERS
130	230	RUN IN OPEN END PIPE
230	400	CIRC + RIG TO RUN CEMENT

DRILLER L. Hunter NO. HELPERS 4

---

4 P.M. TO 12 P.M.

START 2710 PROGRESS END

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
RAN Plug #1 2710 – 2610' 50 sx Cement Displ. @ 430 PM w/ 28 BBLs.					
RAN Plug #2 608' – 508' Displ @ 715 PM w/ 5.5 BBLs Water					

ADDITIVES

NO.	FROM	TO	RECOVERED	FORMATION

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
400	430	Ran Plug #1
430	700	Lay Down 67 SINGLES
700	715	Ran Plug #2
715	745	Lay DOWN PIPE
745		Blow mud lines KELLY SOCK + MOUSE HOLE BREAK & Lay DOWN KELLY
	900	
900	1200	Clean mud tanks

DRILLER J. T. Moore NO. HELPERS 1

52 - 8BAX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 31 / 72

WELL NAME	H.B. et al Willow A-39	LDG. FLG. TO KB	
CONTRACTOR	Commonwealth	TYPE RIG	U 34 D
RIG NO.	12	TOOL PUSHER	Fred Schis
		K. B. ELEV.	
		GRD. ELEV.	

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
							T. Hunter

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH			

BIT RECORD

START / PROGRESS / END	NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.								
8 A.M. TO 4 P.M.								
4 P.M. TO 12 P.M.								

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 8 A.M.				
8 A.M. TO 4 P.M.				
4 P.M. TO 12 P.M.				

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12 P.M. TO 8 A.M.						
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.						

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.						
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.						

ADDITIVES

CORING

	NO.	FROM	TO	RECOVERED	FORMATION
12 P.M. TO 8 A.M.					
8 A.M. TO 4 P.M.					
4 P.M. TO 12 P.M.					

SURVEY

	DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.
12 P.M. TO 8 A.M.						
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.						

DRILL STEM TESTS

	NO.	INTERVAL	FORMATION
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES: IHP / FHP / IFP / FFP / ISIP / FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	500	Logging
500	800	Run in D.C.'s + Lay Down Same

DRILLER L. Hunter NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
800	815	Rig Serv + B.O.P.
815	400	Wait for plain to bring cementers

DRILLER L. Hunter NO. HELPERS

FROM	TO	DESCRIPTION OF WORK
400	1200	ONE Man WATCHING Rig

DRILLER NO. HELPERS

52 - 88AX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE MAR. 30 72

WELL NAME H. B. Et. Al. Willow A-39
CONTRACTOR Commonwealth TYPE RIG U 34 R
RIG NO. 12 TOOL PUSHER Fred Dehn

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								Tinkham

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 2645 PROGRESS 58 END 2703	START 2703 PROGRESS 7 END 2710	START PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
6	37258	X55R	8 3/4	2397	2703	306	42

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
6	37258	X55R	8 3/4	2397	2710	313	43 3/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 X 14	500	60	35

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 14	500	60	35

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	21 26 71	1	515.86	27	428

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	21 88.24		515.86	9 53	428

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel + L.C.M.	9.8	52	10.6	10.5	2/32

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel + LCM	87	60	10-6	10.5	3/32

ADDITIVES Peltex 100 #

ADDITIVES Barite 2717.91
S.L.M 2710.60
7.31 Diff + Corr.

CORING

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.
1°	2710				

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	12 15	Rig Serv + B.O.P.E.
12 15	8 00	Drilling

DRILLER L. Hunter NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
8 00	8 15	Rig Ser + BOPE
8 15	10 00	Drilling
10 00	10 30	Circ To Log.
10 30	10 45	Survey
10 45		Blow Kelly Lines Trip out
	1 00	& Make Work out
1 00		Rig To Log & Logging By:
	4 00	Schlumberger

DRILLER W. McGregor NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
4 00	12 00	Logging

DRILLER NO. HELPERS

52 - 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 29 / 72

WELL NAME H.B. Ft. Mc. Willow A-39	LDG. FLG. TO KB	CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
CONTRACTOR Commonwealth / TYPE RIG U 34-D	K. B. ELEV.									Tarlton
RIG NO. 12 / TOOL PUSHER Ted Tebo	GRD. ELEV.									

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 2490 PROGRESS 44 END 2534	START 2534 PROGRESS 59 END 2593	START 2593 PROGRESS 52 END 2645

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.							
6	37258	X55R	8 3/4	2397	2534	137	19 1/4
8 A.M. TO 4 P.M.							
6	37258	X55R	8 3/4	2397	2593	196	27
4 P.M. TO 12 P.M.							
6	37258	X55R	8 3/4	2397	2645	248	34 1/4

DRILLING DATA

12 P.M. TO 8 A.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 14	400	60	35
8 A.M. TO 4 P.M.			
6 1/2 x 14	400	60	35
4 P.M. TO 12 P.M.			
6 1/2 x 14	400	60	35

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12 P.M. TO 8 A.M.	4"	2000 62		515.16	19'	4.28
8 A.M. TO 4 P.M.	4"	2038.99		515.16	41'	4.28
4 P.M. TO 12 P.M.	4"	2094	71	515.16	31	4.28

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.	Gel + L.C.M.	8.7	40	10.6	11.0	2/32
8 A.M. TO 4 P.M.	Gel + L.C.M.	8.8	55			
		8.2	70	8.8	11.0	3/32
4 P.M. TO 12 P.M.	Gel + L.C.M.	8.1	65	12.0	12.0	2/32

ADDITIVES (12 P.M. TO 8 A.M.) Gel 4000 #, Soda Ash 100 #, CMC 100 #, Pel Tex 200 #

ADDITIVES (8 A.M. TO 4 P.M.) Soda Ash 200 #, Gel 1500 #, Sawdust 20 Sax, Cmc, Fibre 5 Sax, Quik Gel & Cleaned out Shale Tank.

ADDITIVES (4 P.M. TO 12 P.M.) Pel Tex 200 #, Interlok 5 Sax

CORING

NO.	FROM	TO	RECOVERED	FORMATION
12 P.M. TO 8 A.M.				
8 A.M. TO 4 P.M.				
4 P.M. TO 12 P.M.				

SURVEY

12 P.M. TO 8 A.M.	1 1/2 DEG. AT 2530 FT.	DEG. AT FT.	DEG. AT FT.
8 A.M. TO 4 P.M.	DEG. AT FT.	DEG. AT FT.	DEG. AT FT.
4 P.M. TO 12 P.M.	1 1/4 DEG. AT 2624 FT.	DEG. AT FT.	DEG. AT FT.

DRILL STEM TESTS

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
NO.			
INTERVAL			
FORMATION			
VALVE OPEN (MINS.)			
INITIAL SHUT-IN (MINS.)			
FINAL SHUT-IN (MINS.)			
GAS TO SURFACE	MIN. @ MCF/D MAX.	MIN. @ MCF/D MAX.	MIN. @ MCF/D MAX.
OIL TO SURFACE	MIN. @ BBL/D MAX.	MIN. @ BBL/D MAX.	MIN. @ BBL/D MAX.
RECOVERY:			
PRESSURES	IHP FHP IFP FFP ISIP FSIP	IHP FHP IFP FFP ISIP FSIP	IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	12 P.M. TO 8 A.M. DESCRIPTION OF WORK
1200	1215	Rig Serv & W.O.P's
1215	715	Drilling
715	730	Survey
730	800	Drilling

FROM	TO	8 A.M. TO 4 P.M. DESCRIPTION OF WORK
800	815	Rig Ser & BOP's
815	400	Drilling

FROM	TO	4 P.M. TO 12 P.M. DESCRIPTION OF WORK
400	415	Rig Ser & BOP's
415	900	Drilling
900	930	Survey
930	1200	Drilling

DRILLER L. Hunter NO. HELPERS 4

DRILLER D. McGregor NO. HELPERS 4

DRILLER L. Hunter NO. HELPERS 4

52 - 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 28 / 72

WELL NAME	H.B. Et. Al. Willow A-39		LDG. FLG. TO KB	CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
CONTRACTOR	Commonwealth	TYPE RIG U 34 D	K. B. ELEV.									T. Tatham
RIG NO.	12	TOOL PUSHER Fred John	GRD. ELEV.									

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 2350 PROGRESS 47 END 2397	START 2397 PROGRESS 40 END 2437	START 2437 PROGRESS 53 END 2490

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
5	38814	X55R	8 3/4	1905	2397	492	52 1/4
6	37258	X55R	8 3/4	2397	2437	40	5
6	37258	X55R	8 3/4	2397	2490	93	11 3/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 14	400	70	35 000
6 1/2 x 14	350	70	10 - 35
6 1/2 x 14	400	60	35

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COLLAR	KELLY IN	CORE BBL.
4"			515 86		1237
4"	18	78 4	515 86	41	4.28
4"	19	3198	515 86	32	4.28

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel + L.C.M.	8.7	65	36.0	12.0	4/32
Gel Chem.	8.5	60			
	8.6	58	36.	12.0	4/32
Gel Chem	8.6	55	36.	11.5	3/32.

ADDITIVES 900 ± Gel
200 ± Peltex
200 ± Soda Ash

ADDITIVES GMC 2 sks Rel.
Gel 1,000 ±
Soda Ash 100 ±

ADDITIVES 100 ± CMC.

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

3/4 DEG. AT 2380 FT.	DEG. AT FT.	DEG. AT FT.	DEG. AT FT.
DEG. AT FT.	DEG. AT FT.	DEG. AT FT.	DEG. AT FT.
1 1/8 DEG. AT 2467 FT.	DEG. AT FT.	DEG. AT FT.	DEG. AT FT.

DRILL STEM TESTS

NO.	INTERVAL	FORMATION

VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	1215	Rig Serv'd & B.O.P.'s.
1215	315	Drilling
315	330	Survey
330	645	Drilling
645	800	Trip Out

FROM	TO	DESCRIPTION OF WORK
800		Finish out. Lay down Boot
	900	Stabilizer
900	915	Rig Ser. Ck Blind Rams
915	1045	Trip in.
1045	1100	Break Circ. one Stack off Stat.
1100		Drilling

FROM	TO	DESCRIPTION OF WORK
400	415	Rig Ser. & Lubs
415	745	Drilling
745	800	Survey
800	1030	Drilling
1030	1115	Clean Suction Tank
1115	1200	Drilling

DRILLER B. Hunter NO. HELPERS 4

DRILLER [illegible] NO. HELPERS 4

DRILLER B. Hunter NO. HELPERS 4

APR 10 1972

52 - 8EAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 27 72

WELL NAME	H.B. Et Al. Willows A-39	LDG. FLG. TO KB	
CONTRACTOR	Commonwealth	TYPE RIG	034D
RIG NO.	12	TOOL PUSHER	Fred Schmidt
		K. B. ELEV.	
		GRD. ELEV.	

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T. Hubbard

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 2129 PROGRESS 80 END 2209	START 2209 PROGRESS 69 END 2278	START 2278 PROGRESS 72 END 2350

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.							
5	38814	ISSR	8¾	1905	2209	304	30¾
8 A.M. TO 4 P.M.							
5	38814	ISSR	8¾	1905	2278	373	38¼
4 P.M. TO 12 P.M.							
5	38814	ISSR	8¾	1905	2350	445	46

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 8 A.M.	6½ x 14	350	60	35
8 A.M. TO 4 P.M.	6½ x 14	350	60	35
4 P.M. TO 12 P.M.	6½ x 14	350	60	35

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COLL.	KELLY IN	CORE BBL.
12 P.M. TO 8 A.M.	4"	16	1	39	515.86	20	Jubs 1237
8 A.M. TO 4 P.M.	4"	17	2	1	04	515.86	29	257
4 P.M. TO 12 P.M.	4"	17	28	1	70	515.86	41	1237

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.	Gel L.C.M.	8.4	54	12.5	12.0	2/32
8 A.M. TO 4 P.M.	Gel L.C.M.	8.6	70			
		8.5	70	40.0	12.0	4/32
4 P.M. TO 12 P.M.	Gel L.C.M.	8.6	62	38.0	12.0	4/32

ADDITIVES (12 P.M. TO 8 A.M.): ~~Gel~~ Pel Tol 250#, 100# Soda Ash

ADDITIVES (8 A.M. TO 4 P.M.): Gel 2,000# Soda Ash 300# Bicarb 100# Sawdust 20sx Interlok 5sx Cane Fibre 5sx

ADDITIVES (4 P.M. TO 12 P.M.):

CORING

	NO.	FROM	TO	RECOVERED	FORMATION
12 P.M. TO 8 A.M.					
8 A.M. TO 4 P.M.					
4 P.M. TO 12 P.M.					

SURVEY

12 P.M. TO 8 A.M.	1¼ DEG. AT 2270 FT.	DEG. AT FT.	DEG. AT FT.	
8 A.M. TO 4 P.M.	1° DEG. AT 2259 FT.	DEG. AT FT.	DEG. AT FT.	
4 P.M. TO 12 P.M.	DEG. AT FT.	DEG. AT FT.	DEG. AT FT.	

DRILL STEM TESTS

	NO.	INTERVAL	FORMATION	VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)	GAS TO SURFACE	OIL TO SURFACE	RECOVERY:	PRESSURES
12 P.M. TO 8 A.M.							MIN. @ MCF/D MAX.	MIN. @ BBL/D MAX.		IHP FHP IFP FFP ISIP FSIP
8 A.M. TO 4 P.M.							MIN. @ MCF/D MAX.	MIN. @ BBL/D MAX.		IHP FHP IFP FFP ISIP FSIP
4 P.M. TO 12 P.M.							MIN. @ MCF/D MAX.	MIN. @ BBL/D MAX.		IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

	FROM	TO	DESCRIPTION OF WORK
12 P.M. TO 8 A.M.	1200	1215	Rig Serv + B.O.Ps.
	1215	345	Drilling
	345	400	Survey
	400	800	Drilling
8 A.M. TO 4 P.M.	800	815	Rig Serv + BOPs
	815	130	Drilling
	130	145	Survey
	145	400	Drilling
4 P.M. TO 12 P.M.	400	415	Rig Serv + BOPs
	415	1200	Drilling

DRILLER E. Hunter NO. HELPERS 4

DRILLER D. McGregor NO. HELPERS 4

DRILLER E. Hunter NO. HELPERS 4

APR 10 1972

52 - 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 26

WELL NAME H.B. ET AL WILLOW A 39
CONTRACTOR COMMONWEALTH
RIG NO. 12
TYPE RIG U 34 D
TOOL PUSHER Jared White

LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN

COMPANY SUPERVISOR J.E.H.

12 P.M. TO 8 A.M.

DEPTH: START 2017 PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES Gel 500
Sawdust - 25 sax
Cane Fiber 8 sax

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	1215	Rig Serv + U.B. Op's
1215	115	Trip out Plugged Pipe
		Lay Down 12 Singles & Pump
115	400	Out Cement @ Hole.
400	500	Fill Hole @ Fillup Line
500	600	Run in @ Bit Slow to 1500'
600	630	Circ
630	700	Pick up Singles Run in to 1884'
700	800	Clean out to Bottom

DRILLER L. Hunter NO. HELPERS 4

8 A.M. TO 4 P.M.

DEPTH: START 2017 PROGRESS 22 END 2039

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
	38814	XSSR	8 3/4	1905	2039	134	15 3/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 14	250	50	35

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	14	7	516.86	36	1237

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel. LC.M	81	70			

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
800	830	Clean out To Stn
830	930	Drill From 2017 To 2018
930		Trip To Pick up Dc's Bit & Stab
	1230	Rig Serv & Check Blind Rams
1230	115	Circ & Clean out Mud Pumps
115	400	Drilling

DRILLER D. McGregor NO. HELPERS 4

4 P.M. TO 12 P.M.

DEPTH: START 2039 PROGRESS 90 END 2129

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
	38814	XSSR	8 3/4	1905	2129	224	23 1/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 14	300	60	35 000

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	15	6	515.86	33	1237

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel. LCM	8.1	70			

ADDITIVES 2000 # Gel
400 # Soda Ash

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT 2070 FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
400	700	Drilling + Rig Serv + Bolst
700	715	Survey
715	1200	Drilling

DRILLER L. Hunter NO. HELPERS 4

52 - 8BAX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 25/72

WELL NAME	H.B. Willow	LDG. FLG. TO KB	
CONTRACTOR	Commonwealth	TYPE RIG U 340	K. B. ELEV. 1090
RIG NO.	12	TOOL PUSHER Fred Tchir	GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T.E.H.

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 2617	START 2017	START 2017

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES Gel 5000# Sawdust 50 Sax
Interlock 15 Sax
Fiber 4 Sax

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12:00	12:45	Run in w/ bit
12:45	1:15	Mix Lost circ mat
1:15	3:00	Drill out Plug Lost mud @ 1970
3:00	5:00	Trip to run open end
5:00		Build volume Mix L.C.M
	8:00	Wait on Water

DRILLER J. T. Moore NO. HELPERS 4

START 2017

ADDITIVES 40 SAX SAW DUST
2000# GEL 11 SAX INTERLOK
50# Caustic 5 SAX CANE FIBER

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

NO.	FROM	TO	RECOVERED	FORMATION

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY: Fluid @ 300'

PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
8:00	8:15	Rig Serv + ✓ B.O.P.'s.
8:15	9:00	Wait on Water + Rig To Run Cement
9:00	9:30	Pump 50 Bbls Mud + Run Plug #10
9:30	11:00	Pull 5 Stds. + W.O.C. Mix Mud
11:00	12:00	Fill Hole @ 1700' + Circ
12:00	12:15	Run in To 2004'
12:15	1:30	Circ Build Volume + Cond. Mud
1:30	3:00	Tag Bottom Lost Circ. W.O. orders
3:00	3:30	Pull 8 Stds + Pump 20 Bbls Diesel Fuel
3:30	4:00	Run in To 2004' Run Plug # 11.

DRILLER L. Hunter NO. HELPERS 4

START 2017

ADDITIVES Gel 5500# INTERLOK 5 SAX
SAWDUST 110 SAX CAUSTIC 50#
FIBRE 5 SAX

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

NO.	FROM	TO	RECOVERED	FORMATION

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
4:00	4:15	Rig Serv B.O.P's
4:15		Pull 5 Stds - WOC - Mix Mud
	7:00	Run Mud Down Hole (No Returns)
7:00		Run in 5 Stds Tag Btm Build up
		Volume - Mix Mud. Circ up 25
	9:00	Short Trip Bacs + Wash Down Pipe
9:00	9:30	Pull out To 1940. Run Plug #12
9:30	11:30	Pull 5 Stds + WOC Mix Mud L.C.M.
11:30	12:00	Run in To Feel For Plug #12.

DRILLER L. McGregor NO. HELPERS 4

52 - 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 24 1972

WELL NAME H.B. Willow A39
CONTRACTOR Commonwealth — TYPE RIG U340
RIG NO. 12 — TOOL PUSHER

LDG. FLG. TO KB
K. B. ELEV. 1090
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

12 P.M. TO 8 A.M.

DEPTH START 2017 — PROGRESS — END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES Laudust 20 ~~sax~~ Sax Cal Seal
Gel 500 # 32 Sax Cement
interlock 2 ~~sax~~

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.
				1/4	2201

DRILL STEM TESTS

NO. — INTERVAL — FORMATION 2201 30 / 31 55
VALVE OPEN (MINS.) — INITIAL SHUT-IN (MINS.) — FINAL SHUT-IN (MINS.) 42 30
GAS TO SURFACE — MIN. @ — MCF/D MAX. 17
OIL TO SURFACE — MIN. @ — BBL/D MAX.
RECOVERY: 70

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	2 30	Hoist Bit Run in w/ open end
2 30		Cd up 50 sawdust bags Pump
	4 15	some down drill pipe
4 15		Pull 3 stds off Btm Run to Btm
	4 45	Pull 2 stds Rig to cement
4 45		Mix 50 sax cement Plug # 5
	5 15	Displace same Pull 4 stds
5 15		W.O.C.
	9 00	Run in Feel Plug @ 2016
9 00		Pump down 50 sawdust bags
		Rig to Rerun

DRILLER J T Moore — NO. HELPERS 4

8 A.M. TO 4 P.M.

START 2017 — PROGRESS — END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES Gel 4300 50 Caustic
4260 100 Sax Cement + 50 Sax Gel-Seal

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

NO. — INTERVAL — FORMATION
VALVE OPEN (MINS.) — INITIAL SHUT-IN (MINS.) — FINAL SHUT-IN (MINS.)
GAS TO SURFACE — MIN. @ — MCF/D MAX.
OIL TO SURFACE — MIN. @ — BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
8 00	8 30	Run Plug # 6
8 30	9 00	Pull 4 stds w.o.c. Rig Serv. + B.O.P.
9 00	10 00	Fill Hole @ 1760' + Circ
10 00	10 30	Run in to Feel Plug Tag Bottom (No Plug) (Lost Circ)
10 30	11 00	Run Plug # 7
11 00		Pull 4 stds W.O.C. + Wait on Water
23 00	3 00	Pump 50 Cu ft Sax + Displace
3 00	3 30	Run Plug # 8 Pull 4 stds
3 30	4 00	W.O.C. + Wait on Water

DRILLER L. Hamilton — NO. HELPERS 4

4 P.M. TO 12 P.M.

START 2017 — PROGRESS — END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES Laudust 40 sax Bi carb 100 #
interlock 5 sax Gel 700 #
Fiber 2 sax caustic

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

NO. — INTERVAL — FORMATION
VALVE OPEN (MINS.) — INITIAL SHUT-IN (MINS.) — FINAL SHUT-IN (MINS.)
GAS TO SURFACE — MIN. @ — MCF/D MAX.
OIL TO SURFACE — MIN. @ — BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
4 00	4 15	Rig Serv + Ck B.O.P.
4 15	6 15	W.O.B. Mix Mud + L.C.M.
6 15	6 45	Run in Feel for Plug # 8 No Plug
6 45	7 15	Run Plug # 9 + Pull 4 stds
7 15	9 15	W.O.C + Mix L.C.M.
9 15	9 30	Run in Feel Plug @ 1930'
9 30	10 45	Build Volume cond mud
10 45	12 00	Trip to pick up bit
		Fluid @ 1300

DRILLER J T Moore — NO. HELPERS 4

52 - 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 23 1972

WELL NAME	H.B. Willow A 39	LDG. FLG. TO KB	
CONTRACTOR	Commonwealth	TYPE RIG	U 340
RIG NO.		TOOL PUSHER	Al Noren
		K. B. ELEV.	10.96
		GRD. ELEV.	

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
							JCH

DEPTH

12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
START 1984 PROGRESS 30 END 2017	START 2017 PROGRESS END	START @ 2017 PROGRESS END

BIT RECORD

	NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.	5	38814	X55A	8 3/4	1905	2017	112	13
8 A.M. TO 4 P.M.								
4 P.M. TO 12 P.M.								

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 8 A.M.	5½ x 14	500	60	35
8 A.M. TO 4 P.M.				
4 P.M. TO 12 P.M.				

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12 P.M. TO 8 A.M.	4"	23	1	515.86	13.31	8 Subs STAB 12.27
		1475.56				
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.						

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.	Gel	8.5	45	9.2	11.0	2/
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.						

ADDITIVES (12 P.M. TO 8 A.M.): Gel 3700# interlock 13 Sax Sawdust 190 sax nutshell 7 Sax Fiberseal 8 Sax

ADDITIVES (8 A.M. TO 4 P.M.): 3500 # GEL 10 SAX SAWDUST USED 100 SAX CEMENT + 50 SAX CAL-SEAL

ADDITIVES (4 P.M. TO 12 P.M.): 40 SAX SAWDUST 100 # CAUSTIC 8 SAX INTERLOK 1000 # GEL. 34 SAX CEMENT 17 SAX CAL-SEAL

CORING

	NO.	FROM	TO	RECOVERED	FORMATION
12 P.M. TO 8 A.M.					
8 A.M. TO 4 P.M.					
4 P.M. TO 12 P.M.					

SURVEY

	DEG. AT FT.	DEG. AT FT.	DEG. AT FT.
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

DRILL STEM TESTS

	NO.	INTERVAL	FORMATION
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES: IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS

	FROM	TO	DESCRIPTION OF WORK
12 P.M. TO 8 A.M.	12 00	2 15	Drlg
	2 15	2 30	R.S. Bop ✓
	2 30	2 45	Drlg
	2 45	7 15	M & L.C.M.
	7 15	8 00	Hoist & run plug
8 A.M. TO 4 P.M.	8 00	8 45	Finish out
	8 45	9 00	Rig Serv & ✓ B.O.P.'s
	9 00	10 00	Run in Pipe open end & pick-up 17 Singles
	10 00	10 45	Run Cement Plug # 4 + Displace Pipe
	10 45	11 45	Pull 4 Stds wait on water
	11 45	2 00	Run Cement Plugs # 2 + 3
	2 00		Pump 80 cu ft Saw Dust Sax Down Drill Pipe @ 2004'
		4 00	+ Displace Pipe
4 P.M. TO 12 P.M.	4 00	5 00	Pull up to 1910' + Run Plug # 4
	5 00	5 15	Rig Serv + B.O.P.'s
	5 15	6 15	W.O.C + wait on water
	6 15	6 45	Run in + Feel Plug # 4 @ 1764'
	6 45	8 45	Fill Hole Circ & Cond Mud
	~~8 45~~	~~9 00~~	~~Pull out plug lost mud @ 1490~~
	8 45	11 15	Pull open end Run in w/ bit
	11 15	11 30	Drill out plug lost mud @ 1800
	11 30	11 45	Run in 4 stds to tag btm
	11 45	12 00	Pull out w/ bit

DRILLER J. T. Moore NO. HELPERS 4

DRILLER E. Hunter NO. HELPERS 4

DRILLER J. T. Moore NO. HELPERS 4

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REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 22 1972

WELL NAME H.B. Willow A 39
CONTRACTOR Commonwealth
TYPE RIG U 340
RIG NO. 12
TOOL PUSHER Al Nam
LDG. FLG. TO KB
K. B. ELEV. 1090
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								JEM

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 1834 PROGRESS 60 END 1894	START 1894 PROGRESS 33 END 1927	START 1927 PROGRESS 60 END 1987

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.							
4	30149	X55R	8 3/4	1174	1894	720	95 1/2
8 A.M. TO 4 P.M.							
4	30149	X55R	8 3/4	1174	1905	731	97 1/2
5	38814	X55R	8 3/4	1905	1927	22	3
4 P.M. TO 12 P.M.							
~~5~~ 6	38814	X55R	8 3/4	~~1905~~	1987	80	10 1/2

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 8 A.M.	6 1/2 x 14	500	60	35
8 A.M. TO 4 P.M.	6 1/2 x 14	550	60	35000
4 P.M. TO 12 P.M.	6 1/2 x 14	550	60	35,000

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COLLS	KELLY IN	X-O SUB & CORE BBL.
12 P.M. TO 8 A.M.	4	21 1350.39	1	18 515.86	~~15.38~~ 15.60	X-O SUB 3.48 CORE BBL 5.00 12.37
8 A.M. TO 4 P.M.	4"	22 1392.25		18 515.86	17	X-O SUB 3.48 CORE BBL 5.00
4 P.M. TO 12 P.M.	4"	23 1444.22		17 515.86	14.65	X-O SUB 3.48 CORE BBL 5.00 12.37

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.	Gel	8.7	50	10.2	11.5	2/32
		8.7	48			
8 A.M. TO 4 P.M.	Gel + L.C.M.	8.9	52	11.6	10.5	2/32
		8.8	49			
4 P.M. TO 12 P.M.	Gel	8.8	51			
		8.5	43	9.0	10.5	2/

ADDITIVES
12 P.M. TO 8 A.M.: CMC 50 = 1/2 lb
8 A.M. TO 4 P.M.:
4 P.M. TO 12 P.M.: Gel 1500 = Soda Ash 200 =

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

12 P.M. TO 8 A.M.	1 1/2 DEG. AT 1885 FT.	DEG. AT FT.	DEG. AT FT.
8 A.M. TO 4 P.M.	DEG. AT FT.	DEG. AT FT.	DEG. AT FT.
4 P.M. TO 12 P.M.	1/4 DEG. AT 1950 FT.	DEG. AT FT.	DEG. AT FT.

DRILL STEM TESTS

	NO.	INTERVAL	FORMATION	VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)	GAS TO SURFACE	MIN. @	MCF/D MAX.	OIL TO SURFACE	MIN. @	BBL/D MAX.	RECOVERY:	PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP
12 P.M. TO 8 A.M.																				
8 A.M. TO 4 P.M.																				
4 P.M. TO 12 P.M.																				

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 P.M. TO 8 A.M.		
12 00	2 15	Drlg
2 15	2 30	R.S. Bop V Bop Drill
2 30	6 45	Drlg
6 45	7 00	Survey
7 00	8 00	Drlg
8 A.M. TO 4 P.M.		
8 00	10 00	DRILLING
10 00	11 30	TRIP OUT
11 30	11 45	Rig SERV + V BLIND RAMS
11 45	1 00	RUN IN
1 00	4 00	DRILLING
4 P.M. TO 12 P.M.		
4 00	4 15	Rig SERV & B.O.P.'s
4 15	7 45	DRILLING
7 45	8 00	SURVEY
8 00	12 00	DRLG

DRILLER J. T. Moore NO. HELPERS 4
DRILLER L. Munro NO. HELPERS 4
DRILLER J. T. Moore NO. HELPERS 4

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Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 21 1972

WELL NAME	H.B. Willow A 39	LDG. FLG. TO KB	
CONTRACTOR	Commonwealth	TYPE RIG U 340	K. B. ELEV. 10.90
RIG NO.		TOOL PUSHER Al Noum	GRD. ELEV.

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN

COMPANY SUPERVISOR JEm

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 1660 PROGRESS 45 END 1705	START 1705 PROGRESS 60 END 1765	START 1765 PROGRESS 69 END 1834

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	30149	X55R	9 3/4	1174	1705	531	73
4	30149	X55R	8 3/4	1174	1765	593	80 1/2
4	30149	X55R	8 3/4	1174	1834	660	80

DRILLING DATA

12 P.M. TO 8 A.M.				8 A.M. TO 4 P.M.				4 P.M. TO 12 P.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 14	450	60	30	6 1/2 x 14	450	60	30 - 35	6 1/2 x 14	450	60	35 M

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL	KELLY IN	~~CORE BBL.~~ STAB	X CORE BBL. STAB
4	11 63 14		18 515.86	13.63	12.37	
4"	12 26 24	1	18 515.86	11.47	1237	X 3.63 STAB
4"	1286.49	1	18 515.86	19.28	1237	X 3.63 STAB

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
	8.8	43	9.6	12	2/
	8.8	45			
Gel + Sawdust	8.6	44	18.0	11.5	2/32
	8.7	57			
Gel. + Sawdust	8.7	48			
	8.7	50	9.4	11.5	2/

ADDITIVES Gel 3800 #
Sawdust 65 Sax
Fiber Seal 10 Sax

ADDITIVES Sawdust 105 Sax
Fiber 2 Sax
Cmc 100 # Peltex 100 #

ADDITIVES Gel 1000 #
Sawdust 70 Sax
Fiberseal 2 Sax

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

1/2 DEG. AT 1665 FT.	DEG. AT FT.	DEG. AT FT.	
1 3/4 DEG. AT 1730 FT.	DEG. AT FT.	DEG. AT FT.	
1 3/4 DEG. AT 1795 FT.	DEG. AT FT.	DEG. AT FT.	

DRILL STEM TESTS

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
NO.			
INTERVAL			
FORMATION			
VALVE OPEN (MINS.)			
INITIAL SHUT-IN (MINS.)			
FINAL SHUT-IN (MINS.)			
GAS TO SURFACE	MIN. @ MCF/D MAX.	MIN. @ MCF/D MAX.	MIN. @ MCF/D MAX.
OIL TO SURFACE	MIN. @ BBL/D MAX.	MIN. @ BBL/D MAX.	MIN. @ BBL/D MAX.
RECOVERY:			
PRESSURES	IHP FHP IFP FFP ISIP FSIP	IHP FHP IFP FFP ISIP FSIP	IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	100	Drlg
100	115	R.S. Bop's
115	130	Survey
130	430	Drlg
430	645	Mix lost circ mat.
645	800	Drlg

FROM	TO	DESCRIPTION OF WORK
800	815	Rig Serv 1 Bob. + (Blow out Drill)
815	1130	Drilling
1130	1145	Survey
1145	400	Drilling

FROM	TO	DESCRIPTION OF WORK
400	415	Rig Serv & 1 Bob
415	745	Drilling
745	800	Survey
800	1200	Drlg

DRILLER J. T. Moore NO. HELPERS 4

DRILLER L. Hunter NO. HELPERS 4

DRILLER J. T. Moore NO. HELPERS 4

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REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 20/72

WELL NAME H.B. Willow A39
CONTRACTOR Commonwealth TYPE RIG 1134D
RIG NO. 12 TOOL PUSHER Al Nour

LDG. FLG. TO KB
K. B. ELEV. 1090
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								JEM

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 1524 PROGRESS 34 END 1558	START 1558 PROGRESS 42 END 1600	START 1600 PROGRESS 60 END 1660

BIT RECORD

	NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.	4	30149	X55R	8 3/4	1174	1558	384	5 3
8 A.M. TO 4 P.M.	4	30149	X55R	8 3/4	1174	1600	426	60 1/2
4 P.M. TO 12 P.M.	4	30149	X55R	8 3/4	1174	1660	486	67 3/4

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 8 A.M.	5 1/2 x 14	350	60	10-8
8 A.M. TO 4 P.M.	6 1/2 x 14	450	60	30-8
4 P.M. TO 12 P.M.	6 1/2 x 14	450	60	30

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL. & STAB
12 P.M. TO 8 A.M.	4	100	6 & 1	515.86	22.96	12.37
8 A.M. TO 4 P.M.	4"	103	8 & 6	515.86	34'	1231'
4 P.M. TO 12 P.M.	4"	110	1.45	515.86	30.32	1237'

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.		8.5	80			
		8.5	46			
8 A.M. TO 4 P.M.	GEL	8.7	41	9.8	12.0	2/32
		8.7	47			
4 P.M. TO 12 P.M.		8.7	41			
		8.8	45	9.8	12	2/32

ADDITIVES (12 P.M. TO 8 A.M.): Paltex 250#, CMC 100#
ADDITIVES (8 A.M. TO 4 P.M.): GEL 2500#, Soda Ash 100#, CMC 150#, Mica 500#
ADDITIVES (4 P.M. TO 12 P.M.): Gel 1000#

CORING

	NO.	FROM	TO	RECOVERED	FORMATION
12 P.M. TO 8 A.M.					
8 A.M. TO 4 P.M.					
4 P.M. TO 12 P.M.					

SURVEY

12 P.M. TO 8 A.M.	3/4 DEG. AT 1540 FT.	DEG. AT FT.	DEG. AT FT.
8 A.M. TO 4 P.M.	1 1/2 DEG. AT 1575 FT.	DEG. AT FT.	DEG. AT FT.
4 P.M. TO 12 P.M.	1 1/2° DEG. AT 1605 FT.	1 3/4 DEG. AT 1635 FT.	DEG. AT FT.

DRILL STEM TESTS

	NO.	INTERVAL	FORMATION
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.)

	GAS TO SURFACE	OIL TO SURFACE	RECOVERY
12 P.M. TO 8 A.M.	MIN. @ MCF/D MAX.	MIN. @ BBL/D MAX.	
8 A.M. TO 4 P.M.	MIN. @ MCF/D MAX.	MIN. @ BBL/D MAX.	
4 P.M. TO 12 P.M.	MIN. @ MCF/D MAX.	MIN. @ BBL/D MAX.	

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP
12 P.M. TO 8 A.M.						
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.						

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

12 P.M. TO 8 A.M.

FROM	TO	DESCRIPTION OF WORK
12 00	4 00	Drlg
4 00	4 15	RS. Bop & Service swivel
4 15	4 30	Survey
4 30	8 00	Drlg

DRILLER J. T. Moore NO. HELPERS 4

8 A.M. TO 4 P.M.

FROM	TO	DESCRIPTION OF WORK
8 00	8 15	Rig Seal & V Bo. Ps.
8 15	11 45	Drilling
11 45	12 00	Survey
12 00	4 00	Drilling

DRILLER B. Hunter NO. HELPERS 4

4 P.M. TO 12 P.M.

FROM	TO	DESCRIPTION OF WORK
4 00	5 00	Drilling
5 00	5 15	Rig Seal & V Bo Ps
5 15	5 30	Survey
5 30	8 45	Drilling
8 45	9 00	Survey
9 00	12 00	Drlg

DRILLER J. T. Moore NO. HELPERS 4

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REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 19/72

WELL NAME	H.B. Willow A 39		LDG. FLG. TO KB		CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
CONTRACTOR	Commonwealth	TYPE RIG U 346	K. B. ELEV. 10.90										T. Tilson
RIG NO.	12	TOOL PUSHER	GRD. ELEV.										

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 1522 PROGRESS END	START 1522 PROGRESS END	START 1522 PROGRESS 2 END 1524
BIT RECORD	NO. / SERIAL NO. / TYPE / SIZE / FROM / TO / FOOTAGE / HRS. RUN	NO. / SERIAL NO. / TYPE / SIZE / FROM / TO / FOOTAGE / HRS. RUN	NO. 4 / SERIAL NO. 5377A~~6~~ / TYPE XBSR / SIZE 8 3/4 / FROM 1174 / TO 1524 / FOOTAGE 350 / HRS. RUN 45 1/2
		Felt For Plug #3 @ 826' Unable to obtain PRESSURE, Hole Full - Tripped Run Plug #3	Felt For Plug #3 @ 800' ~~Tested~~ For Formation Above Plug to 100# Bleed To 50#
DRILLING DATA	LINER SIZE / PUMP PRESSURE / TABLE SPEED / WEIGHT ON BIT	LINER SIZE / PUMP PRESSURE / TABLE SPEED / WEIGHT ON BIT	LINER SIZE / PUMP PRESSURE / TABLE SPEED / WEIGHT ON BIT
			Drilled out Cement 75 / 10
DRILLING STRING	SIZE / STANDS / SINGLES / DRILL COL. / KELLY IN / CORE BBL.	SIZE / STANDS / SINGLES / DRILL COL. / KELLY IN / CORE BBL.	SIZE / STANDS 15 / SINGLES 1 / DRILL COL 8 / KELLY IN / SLICK BBL. STAB
			4 / 975.38 / 515.86 / 20.61 / 12.37
MUD RECORD	TYPE OF MUD / WEIGHT / VIS / WL / PH / FC	TYPE OF MUD / WEIGHT / VIS / WL / PH / FC	TYPE OF MUD / WEIGHT / VIS / WL / PH / FC
	ADDITIVES 50# Lime 1500 Gel 40 Sac Sawdust	Run Plug #3 - 50 Sac + 2% CaCl. Full Returns - Pulled 5 Stds ADDITIVES Filled Hole, Squeezed 1 - BBL after 15 min - Total #3 Bbls Finish @ 1:15 PM. 200# ByCarb	ADDITIVES 200# ByCarb 50# Peltex
CORING	NO. / FROM / TO / RECOVERED / FORMATION	NO. / FROM / TO / RECOVERED / FORMATION	NO. / FROM / TO / RECOVERED / FORMATION
SURVEY	DEG. AT FT. / DEG. AT FT. / DEG. AT FT.	DEG. AT FT. / DEG. AT FT. / DEG. AT FT.	DEG. AT FT. / DEG. AT FT. / DEG. AT FT.
DRILL STEM TESTS	NO. / INTERVAL / FORMATION VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.) GAS TO SURFACE / MIN. @ / MCF/D MAX. OIL TO SURFACE / MIN. @ / BBL/D MAX. RECOVERY: PRESS-URES / IHP / FHP / IFP / FFP / ISIP / FSIP	NO. / INTERVAL / FORMATION VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.) GAS TO SURFACE / MIN. @ / MCF/D MAX. OIL TO SURFACE / MIN. @ / BBL/D MAX. RECOVERY: PRESS-URES / IHP / FHP / IFP / FFP / ISIP / FSIP	NO. / INTERVAL / FORMATION VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.) GAS TO SURFACE / MIN. @ / MCF/D MAX. OIL TO SURFACE / MIN. @ / BBL/D MAX. RECOVERY: PRESS-URES / IHP / FHP / IFP / FFP / ISIP / FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12:00	12:30	Hoist open end
12:30	7:30	W.O.C.
7:30	8:00	Run in w/bit & Drill Pipe

FROM	TO	DESCRIPTION OF WORK
8:00	9:00	Drill out Cement Plug #3 826' To 846'
9:00	10:15	Circ & By Pass Cement Cut Mud
10:15	10:45	Tr. P out B.T
10:45	11:15	Run in Open End.
11:15	12:00	Rig To & Run Cement Plug #3
12:00	12:15	Pull 5 Stands
12:15	1:15	Close Hy Drill & Squeeze @ Hole 4 Bbls
1:15	4:00	W. O. C.

FROM	TO	DESCRIPTION OF WORK
4:00	5:00	W. O. C. Rig Serv + V.B.O.P.
5:00	6:00	Tr. P out Pipe & Run in w B.T
6:00	6:30	Felt Plug #3 @ 800' & Circ
6:30	7:00	Drill out Cement
7:00	8:00	Circ & Cond. Mud
8:00	8:45	Trip out drill Pipe
8:45	9:15	V Blind Rams Change Rubber on Stab
9:15	11:30	Run in w/ B/# 4 Breaking @ 1100' & 1300'
11:30	12:00	Drlg

DRILLER John T. Moore NO. HELPERS 4 | DRILLER B. Hunter NO. HELPERS 4 | DRILLER John T. Moore NO. HELPERS 4

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REV. 2/71△

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 18/72

WELL NAME	H.B. Willow A39	LDG. FLG. TO KB	
CONTRACTOR	Commonwealth	TYPE RIG	U 340
RIG NO.	12	TOOL PUSHER	Al Moore
		K. B. ELEV.	1090
		GRD. ELEV.	

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

DEPTH

12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
START 1470 PROGRESS 28 END 1498	START 1498 PROGRESS 24 END 1522	START PROGRESS END

BIT RECORD

	NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.	4	30148	X55R	8 3/4	1147	1498	324	41½
8 A.M. TO 4 P.M.	4	30149	X55R	8 3/4	1147	1522	348	45
4 P.M. TO 12 P.M.	Ran into Fish For Plug #1 with Bit Plug @ 835' Pull out Fish @ 320'							

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 8 A.M.	6½ x 14	250	60	10
8 A.M. TO 4 P.M.	6½ x 14	300	75.	10.
4 P.M. TO 12 P.M.	RAN Plug #2 50 Sx + 2% CALC.			

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12 P.M. TO 8 A.M.	4"	94382	15	18 516.86	25.95	12.37
8 A.M. TO 4 P.M.	4"			516.86		
4 P.M. TO 12 P.M.	Wgt 15.8# Displ @ 11.40 PM.					

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.		8.5	60			
		8.5	68			
8 A.M. TO 4 P.M.	Gel Lime	8.5	70			
	L.C.M.	86	68			
4 P.M. TO 12 P.M.						

ADDITIVES 12 P.M. TO 8 A.M.: Gel 4500#, Lime 50#

ADDITIVES 8 A.M. TO 4 P.M.: RAN 50 Sx Cement + 2% CALC. Displaced @ 345 OPEN End @ 835' FULL RETURNS. (CASED) Hydril after 30 min. SQUEEZED 1 BBL (No Pressure)

CORING

	NO.	FROM	TO	RECOVERED	FORMATION
8 A.M. TO 4 P.M.			Lost Circ		

SURVEY

12 P.M. TO 8 A.M.	1½ DEG. AT 1480 FT.	DEG. AT FT.	DEG. AT FT.
8 A.M. TO 4 P.M.	1½ DEG. AT 1513 FT.	DEG. AT FT.	DEG. AT FT.
4 P.M. TO 12 P.M.	DEG. AT FT.	DEG. AT FT.	DEG. AT FT.

DRILL STEM TESTS

	NO.	INTERVAL	FORMATION
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

VALVE OPEN (MINS.) | INITIAL SHUT-IN (MINS.) | FINAL SHUT-IN (MINS.)

GAS TO SURFACE | MIN. @ | MCF/D MAX.

OIL TO SURFACE | MIN. @ | BBL/D MAX.

RECOVERY:

PRESSURES: IHP | FHP | IFP | FFP | ISIP | FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	12 15	Rig Service Bop ✓
12 15	1 45	Run in w/Bit #4 Break circ
1 45	4 00	Drlg
4 00	4 15	Survey @ 1480
4 15	4 30	Work on pump
4 30	8 00	Drlg

DRILLER John T. Moore NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
8 00	8 15	Rig Serv + V.S.A.B.
8 15	11 00	Drilling
11 00	11 15	Survey
11 15	1 00	Drilling
1 00	2 30	TRP out
2 30	3 00	Run in open end
3 00	3 30	Circ Hole @ 835'
3 30	4 00	Rig to Run (Lost Circ Cement Plug #1)

DRILLER L. Hunter NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
4 00	4 30	Run Cement
4 30	5 00	Close Hydril + Squeeze
5 00	5 30	TRP out Pipe
5 30	5 45	Rig Serv + V Blind Ram
5 45	9 30	W.O.C.
9 30	10 00	Run in w/Bit + drill Pipe
10 00	11 00	Hoist Bit
11 00	11 30	Run in open end
11 30	11 45	Run cement Plug displace
11 45	12 00	Pull out of Plug

DRILLER John T. Moore NO. HELPERS

POOR COPY

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REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 17/72

WELL NAME	H.B. Willow A.39	LDG. FLG. TO KB	
CONTRACTOR	Commonwealth	TYPE RIG 4340	K. B. ELEV. 10.90
RIG NO.	12	TOOL PUSHER	GRD. ELEV.

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN

COMPANY SUPERVISOR: J. Nielsen

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 1470 PROGRESS END	START 1470 PROGRESS END	START 1470 PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	30149	XSS	8 3/4	1174	1470	296	35 3/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 14			

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	912	25	515.86	30	XO + STAB 12.37

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES: 500 lb. Gel 200 lb. Caustic. 25 sx Fibre 220 sx Saw Dust 22 sx Salt Gel.

ADDITIVES: 2400 # Gel 15 Sax Cane Fiber 50 #. Caustic 75 Sax Saw Dust 50 # Lime

ADDITIVES: Gel 3500 Cane Fiber 8 Sax Caustic 150 # Saw Dust 50 Sax Lime 100 #

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX

RECOVERY:

PRESS-URES: IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12:00	2:00	Build up Volume & Mix Mud
2:00		Pump Mud (No Returns) Trip
	2:45	out To 645 Pump Mud (No Returns)
2:45		Build Volume Mix Salt Gel Fill
	5:30	Trip In To 830' Pump Down Fill
5:30		Build Volume Mix Mud & LCM.
	8:00	Pump Down Hole (No Returns)

DRILLER: D. McGregor NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
8:00	8:15	Rig Serv + J.S.A.
8:15	9:00	Fill Mud Tank W. Water
		+ Clean Screen On D300
9:00	10:30	Trip Out D.C. + Run In Open End To 832'
10:30		Mix Mud + L.C.M.
		Pump Down Same
		Also Pump 100 Cut Up Sax
		Down Open End D.P.
4:00		Pump 150 Bbls.
		No Returns

DRILLER: L. Hunter NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
4:00	4:15	Rig Serv + B.O.P.S.
4:15		Fill Tanks + Mix Mud + L.C.M.
	9:30	Pump Down 50 Bbls. Of Mud
9:30		Reamed Circ + Circ Hole
		@ 859' + Remove Sawdust Sax
	11:00	From Mud + Circ
11:00	12:00	Trip Out Pipe. (Wet)

DRILLER: L. Hunter NO. HELPERS 4

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Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 16/72

WELL NAME H.B. Willow A-39
CONTRACTOR
RIG NO. Commonwealth 12
TYPE RIG 4-34 D
TOOL PUSHER Al Nourse

LDG. FLG. TO KB
K. B. ELEV. 10.90
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T. Finlay

12 P.M. TO 8 A.M.

DEPTH: START 1410 PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	30149	V55R	8 3/4	1174	—	—	—

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 14	—	—	—

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Restored Circl. @ 1230 am circul (cut) Mud (Very Heavy)					

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	1215	Rig Ser & Lub's.
1215	200	Pump Down mud & Circ Hole
200	600	TRIP to Pick up Bit
600	800	CIRCUL Cond: MUD

DRILLER W. McGregor NO. HELPERS 4

8 A.M. TO 4 P.M.

DEPTH: START 1410 PROGRESS 50 END 1460

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	30149	V55R	8 3/4	1174	1460	286	34 1/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 14	300	68-75	14-10

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	9	12	25 5 1/2	20	—

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel	8.5 8.5	90 75		-	-

ADDITIVES Screen out L.C.M.
72 sax Sawdust 10 sax Fiber
8200# Gel 50# Caustic

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: 13/16 DEG. AT 1450 FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
800	815	Rig Serv + Lub's.
815	900	Circ
900	200	Drilling
200	215	Survey
215	400	Drilling

DRILLER L. Hunter NO. HELPERS 4

4 P.M. TO 12 P.M.

DEPTH: START 1460 PROGRESS 10 END 1470

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	30149	V55R	8 3/4	1174	1470	296	35 3/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 14			

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	9	12	25 5 1/2	30	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel +	8.6	60			

ADDITIVES Gel 3,000#
Fiber 12 Sax
Sawdust 75 Sax

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY: Fluid level 180'

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
400	415	Rig Serv + B.O.P's
415	545	Drilling
545		Lost Circ @ 1470' 50 Bbls Mix Mud + Sawdust - Pump Down Pill (No Returns)
	800	
800		Mix Mud & Sawdust Build Up Volume.
	1030	
1030	1115	Pump Down Mud (No Returns)
1115	1120	Trip out 5 Stands
1120	1200	Build Volume Mix Mud

DRILLER W. McGregor NO. HELPERS

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REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 15/72

WELL NAME	H.B. Wilson A-39	LDG. FLG. TO KB	
CONTRACTOR	Commonwealth	K. B. ELEV.	1090
RIG NO.	12	GRD. ELEV.	
TYPE RIG	340	TOOL PUSHER	Al Nourse

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								Wilson

12 P.M. TO 8 A.M.

DEPTH: START 1356 PROGRESS 54 END 1410

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	30149	XSSR	8¾	1174	1410	236	27½

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6½ x 14	450	68	14

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	849.05		515.86	33	427-8.10

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel.	8.8	55			

ADDITIVES Gel. 5400# ~~Fiber~~ Fiber 10 Sax
Sawdust 100 Bags Caustic 100#
Soda Ash 100

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: 1¼° DEG. AT 1387 FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES: IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS

FROM	TO	DESCRIPTION OF WORK
12:00	12:15	Rig Serv. & Bops
12:15	2:30	Drilling
2:30	2:45	Survey
2:45	4:30	Drilling
4:30		Lost Circ. at 1410 @ appox 60 bbl/hr
	6:00	Mix Gel & Lost Circ. Material
6:00	6:15	Pump Down Mud (Not Returns)
6:15	8:00	Mix Gel & Lost Circ. Material

DRILLER L. McGregor NO. HELPERS 4

8 A.M. TO 4 P.M.

DEPTH: START 1410 PROGRESS — END —

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	30149	XSSR	8¾	1174	—	—	—

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6½ x 14	—	—	—

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	14				

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES Gel 3500# Cane Fiber 10 Sax
Caustic 100#
Sawdust 15 Sax

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES: IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
8:00	8:05	Rig Serv + Bops.
8:05	10:00	Pump Down Mud Show No Returns
10:00	11:00	Mix Mud + L.C.M.
11:00	2:00	T.R. Run in open ended
2:00	4:00	Pump Down Mud + L.C.M. No Returns
		Pump P.U. Approx. 300 Bbls.

DRILLER L. Hunter NO. HELPERS 4

4 P.M. TO 12 P.M.

DEPTH: START 1410 PROGRESS — END —

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES Caustic 100# 25 Salt Gel.
Gel 4500# Peat Moss 125 Sax 60 Sawdust
Sawdust 125 Sax 10 Cane Fiber

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES: IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
4:00	4:15	Rig Serv & Bops.
4:15	6:15	Mix Salt Gel Pill
6:15	7:45	Pump Down Pill
7:45	12:00	Fill Tanks + Mix Mud

DRILLER D. McGregor NO. HELPERS 4

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Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 14/72

WELL NAME	H.B. et al Willow A-39		LDG. FLG. TO KB	CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
CONTRACTOR	Commonwealth	TYPE RIG U 340.	K. B. ELEV. 10.90									T. Fuller
RIG NO.	12.	TOOL PUSHER	GRD. ELEV.									

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 1269 PROGRESS 19 END 1288	START 1288 PROGRESS 10 END 1298	START 1298 PROGRESS 58 END 1356

BIT RECORD

	NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.	4	30149	XSSR	8 3/4	1174	1288	114	14½
8 A.M. TO 4 P.M.	4	30149	XSSR	8 3/4	1174	1298	124	16
4 P.M. TO 12 P.M.	4	30149	XSSR	8 3/4	1174	1356	182	23½

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 8 A.M.	6½ x 15	1400	55 - 80	12 - 18
8 A.M. TO 4 P.M.	6½ x 16	400	68	12
4 P.M. TO 12 P.M.	6½ x 14	1400 / 15	70	12 - 14

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12 P.M. TO 8 A.M.	4"	755	11	516.86	13.24	4.27
8 A.M. TO 4 P.M.	4"	755	11	516.86	15	4.27 / 8.10
4 P.M. TO 12 P.M.	4"	786.81		516.86	41	4.27 / 8.10

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.	Gel.	8.7	65			
		8.7	60		11.0	2/32
8 A.M. TO 4 P.M.	Gel					
4 P.M. TO 12 P.M.	Gel.	8 8.4	42.		7.0	
		10 8.6	50		9.5	

ADDITIVES (12 P.M. TO 8 A.M.): EL 65 SAX; DV 68 2 GALS; SAWDUST 35 SAX; FIBER 9 SACS; CAUSTIC 50#

ADDITIVES (8 A.M. TO 4 P.M.): 1500 # SALT GEL; 30 SAX SAWDUST; 1 FIBEX

ADDITIVES (4 P.M. TO 12 P.M.): 100 CAUSTIC; 2,000# GEL.

CORING

	NO.	FROM	TO	RECOVERED	FORMATION
12 P.M. TO 8 A.M.					
8 A.M. TO 4 P.M.					
4 P.M. TO 12 P.M.					

SURVEY

	DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.
12 P.M. TO 8 A.M.	1½°	1284				
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.	¼	1324				

DRILL STEM TESTS

	NO.	INTERVAL	FORMATION
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.	Plug	Placed @ 838'	
4 P.M. TO 12 P.M.			

	VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.	Circ. Restored when placed - squeezed in formation		
4 P.M. TO 12 P.M.	Plug		

	GAS TO SURFACE	MIN. @	MCF/D MAX.
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

	OIL TO SURFACE	MIN. @	BBL/D MAX.
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

RECOVERY: 12 P.M. TO 8 A.M.: Lost Circ 1288 Drlled 80 BBLs Pumped Down Second Hole 100 BBLs

RECOVERY: 8 A.M. TO 4 P.M.: Left 8 BBLs Above Zone - (No Pressure)

RECOVERY: 4 P.M. TO 12 P.M.: Left 8 BBLs

PRESSURES: IHP / FHP / IFP / FFP / ISIP / FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

	FROM	TO	DESCRIPTION OF WORK
12 P.M. TO 8 A.M.	1200	230	Drilling
	230	245	Rig Ser. + BOPs
	245	300	Survey
	300	330	Drilling
	330	430	Mix Mud + Lost Circ Material
	430	445	Circ (Weak returns)
	445		Mix Mud + Lost Circ Material
		800	
8 A.M. TO 4 P.M.	800	900	Trip out
	900	915	Rig Ser. / Blind Rams + Slip 30' line
	915	1000	Mix Salt Gel Pill
	1000	1030	Run in open end
	1030	1200	Pump Down Pill + Displace Pipe
	1200	1230	Trip out Pipe
	1230	100	Pick up 8¾" Stabilizer
	100	215	Run in @ Bit
	215	400	Drilling
4 P.M. TO 12 P.M.	400	415	Rig Ser. + B.O.Ps
	415	800	Drilling
	800	815	Survey
	815	900	Drilling

DRILLER: W. Gregg NO. HELPERS: 4 (12 P.M. TO 8 A.M.)

DRILLER: B. Hoole NO. HELPERS: 4 (8 A.M. TO 4 P.M.)

DRILLER: W. Gregg NO. HELPERS: 1 (4 P.M. TO 12 P.M.)

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REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 13/72

WELL NAME	HB ET. AL Withlow A-39	LDG. FLG. TO KB	
CONTRACTOR	Common Wealth	TYPE RIG Unit 340	K. B. ELEV. 10.90
RIG NO.	12.	TOOL PUSHER Al Nowa	GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								Tofflemire

12 P.M. TO 8 A.M.

DEPTH: START 1174 PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	30149	X55R	8 3/4	1174	0	0	0

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 14			

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
			515.86		

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESS-URES | IHP | FHP | IFP | FFP | ISIP | FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	12 15	Rig Ser & BOPs
12 15		Trip out Dry Bond Reamer
	2 15	& Boot Rubber Stabilizers
2 15	6 00	Change Heads & Liners in C-250
6 00	7 15	Run in W/ Bit
7 15	8 00	Repair Mud Line

DRILLER D McGregor NO. HELPERS 5

8 A.M. TO 4 P.M.

DEPTH: START 1174 PROGRESS 40 END 1214

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	30149	X55R	8 3/4	1174	1214	40	4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 15	400	68	20M

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	6 6 6 6 10	1	515.86 18	34	Subs 427

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel	8.6	60	9.6	11.0	2/32
	86	87			

ADDITIVES Gel 1500 # 100 # Peltex
2 Gal. DU-68 50 # Caustic

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESS-URES | IHP | FHP | IFP | FFP | ISIP | FSIP

FROM	TO	DESCRIPTION OF WORK
8 00	8 15	Rig Serv + U B.O.Ps.
8 15	12 00	Weld Mud Line + Change Wash Pipe + Packing on Swivel.
12 00	4 00	Drilling

DRILLER L Hunter NO. HELPERS 4

4 P.M. TO 12 P.M.

DEPTH: START 1214 PROGRESS 55 END 1269

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	30149	X55R	8 3/4	1174	1269	95	11 1/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
6 1/2 x 15	400	55-80	18-12.

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	723.73		515.86 18		

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel.	8.7	75			
	8.7	60		11.0	

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: 1 1/4 DEG. AT 1220 FT. | 1 1/2 DEG. AT 1253 FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESS-URES | IHP | FHP | IFP | FFP | ISIP | FSIP

FROM	TO	DESCRIPTION OF WORK
4 00	5 00	DRILLING
5 00	5 15	Rig Serv + U B.O.Ps.
5 15	5 30	SURVEY
5 30	9 15	DRILLING
9 15	9 30	Surveys
9 30	12 00	Drilling

DRILLER D McGregor NO. HELPERS 4

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Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 12/72

WELL NAME	HBOG. AL Willow A-39	LDG. FLG. TO KB	
CONTRACTOR	Canadian Wealth	TYPE RIG	UNIT 34 D
RIG NO.	12	TOOL PUSHER	Al Nourn
		K. B. ELEV.	10.90
		GRD. ELEV.	

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
							T. Calibeau

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 1054 PROGRESS 42. END 1096	START 1096 PROGRESS 36 END 1132	START 1132 PROGRESS 42. END 1174

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
3	33433	XDV	8 3/4	994	1096	102.	16 3/4

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
3	33433	XDV	8 3/4	994	1132	138	23 1/2

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
3	33433	XDV	8 3/4	994	1174	180	39 3/4

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 14	200	70-85.60	18-22.

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 14	200	150	20

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 14	100	120	20

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	565.55		488.03	19	2995

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	596.92		488.03	24	2596

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	628.57		17	34	2596

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
	8.5	52		10.	

ADDITIVES Gel 2300# Sawdust 22 Sax
Caustic 200# Fiber Seal 5 Sax.
Lost Circ @ 1074 - 100 BBLS

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel	8.0	80	18.0	12.5	2/32

ADDITIVES 3 Gal. DV-68 1 Redwood Fiber
150# Pal Tex 51 Sax Sawdust
50# Caustic Gel 1200#

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
	8.0	80		12.5	

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION
	Lost Circ. @ 1132'		70 BBLS of MUD	

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

3/4° DEG. AT 1057 FT.	DEG. AT FT.	DEG. AT FT.	

3/4° DEG. AT 1118 FT.	DEG. AT FT.	DEG. AT FT.	

3/4° DEG. AT 1170 FT.	DEG. AT FT.	DEG. AT FT.	

DRILL STEM TESTS

NO.	INTERVAL	FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @	MCF/D MAX.
OIL TO SURFACE	MIN. @	BBL/D MAX.
RECOVERY:		
PRESSURES	IHP FHP IFP FFP ISIP FSIP	

NO.	INTERVAL	FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @	MCF/D MAX.
OIL TO SURFACE	MIN. @	BBL/D MAX.
RECOVERY:		
PRESSURES	IHP FHP IFP FFP ISIP FSIP	

NO.	INTERVAL	FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @	MCF/D MAX.
OIL TO SURFACE	MIN. @	BBL/D MAX.
RECOVERY:		
PRESSURES	IHP FHP IFP FFP ISIP FSIP	

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	1330	Rig Serv. L.P.s. Survey.
1330	230	Drilling
230	415	Mix Mud & L.C.M. - Circ
415	800	Drilling

DRILLER J. McGregor NO. HELPERS 3

FROM	TO	DESCRIPTION OF WORK
800	1230	DRILLING
1230	1245	Rig Serv + V.B.O.P.
1245	100	SURVEY
100	315	DRILLING
315	400	M. + L.C.M.

DRILLER E. Hunter NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
400	415	Rig Serv
415	430	Circ
430	1045	DRILLING
1045	1100	Chgd out mud Pump
1100	1200	Work down Swamp

DRILLER J. McGregor NO. HELPERS 3

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Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 11/72

WELL NAME	H.B.E.T.AL. Willow A-39		LDG. FLG. TO KB		CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
CONTRACTOR	Common Wealth	TYPE RIG Unit 340	K. B. ELEV. 10.90										
RIG NO.	12	TOOL PUSHER Al Nowe	GRD. ELEV.										T. Tulloch

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 950 PROGRESS 40 END 990	START 990 PROGRESS 25 END 1015	START 1015 PROGRESS 39 END 1054

BIT RECORD

12 P.M. TO 8 A.M.							
NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
2	31966	W07	8 3/4	843	990	147	24

8 A.M. TO 4 P.M.							
NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
2	31966	W07	8 3/4	843	994	151	26 1/2
3	33433	XDV	8 3/4	994			

4 P.M. TO 12 P.M.							
NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
3	33433	XDV	8 3/4	994	1054	60	11

DRILLING DATA

12 P.M. TO 8 A.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 15	250	90-60	15

8 A.M. TO 4 P.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 14	250	90	15-20

4 P.M. TO 12 P.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 14	200	90-40-70	18-

DRILLING STRING

12 P.M. TO 8 A.M.					
SIZE	STANDS ~~SINGLES~~	DRILL COL.	KELLY IN	CORE BBL.
4"	441.52	488.03	36	2995

8 A.M. TO 4 P.M.					
SIZE	STANDS 1 SINGLES	DRILL COL. 17	KELLY IN	CORE BBL.
4"	471.12	488.03	30	

4 P.M. TO 12 P.M.					
SIZE	STANDS ~~SINGLES~~	DRILL COL. 17	KELLY IN	CORE BBL.
4"	504.52	488.03	37.50	2995

MUD RECORD

12 P.M. TO 8 A.M.					
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel-LCM	9.8	95		10.5	

ADDITIVES Soda Ash 500#

8 A.M. TO 4 P.M.					
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel-Caustic	8.8	90		10.5	
L.C.M.	8.1	70			

ADDITIVES Small Stream Water
Screening out L.C.M.

4 P.M. TO 12 P.M.					
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel Caustic	9.7	70		10.5	

ADDITIVES Small Stream Water
1000 lb Gel Soda Ash 300#
Screening out L.C.M.

CORING

12 P.M. TO 8 A.M.				
NO.	FROM	TO	RECOVERED	FORMATION

8 A.M. TO 4 P.M.				
NO.	FROM	TO	RECOVERED	FORMATION

4 P.M. TO 12 P.M.				
NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

12 P.M. TO 8 A.M.			
1 DEG. AT 963 FT.	DEG. AT FT.	DEG. AT FT.	

8 A.M. TO 4 P.M.		
DEG. AT FT.	DEG. AT FT.	DEG. AT FT.

4 P.M. TO 12 P.M.		
3/4 DEG. AT 1025 FT.	DEG. AT FT.	DEG. AT FT.

DRILL STEM TESTS

12 P.M. TO 8 A.M.						
NO.	INTERVAL	FORMATION				
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)				
GAS TO SURFACE	MIN. @	MCF/D MAX.				
OIL TO SURFACE	MIN. @	BBL/D MAX.				
RECOVERY:						
PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

8 A.M. TO 4 P.M.						
NO.	INTERVAL	FORMATION				
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)				
GAS TO SURFACE	MIN. @	MCF/D MAX.				
OIL TO SURFACE	MIN. @	BBL/D MAX.				
RECOVERY:						
PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

4 P.M. TO 12 P.M.						
NO.	INTERVAL	FORMATION				
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)				
GAS TO SURFACE	MIN. @	MCF/D MAX.				
OIL TO SURFACE	MIN. @	BBL/D MAX.				
RECOVERY:						
PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

12 P.M. TO 8 A.M.		
FROM	TO	DESCRIPTION OF WORK
12:00	12:15	Rig Ser & Lubs
12:15	3:15	Drilling
3:15	3:30	Surveys
3:30	8:00	Drilling

8 A.M. TO 4 P.M.		
FROM	TO	DESCRIPTION OF WORK
8:00	8:15	Rig Serv + Lubs.
8:15	9:45	Drilling
9:45	12:30	Trip & Blind Rams
12:30	4:00	Drilling

4 P.M. TO 12 P.M.		
FROM	TO	DESCRIPTION OF WORK
4:00	5:45	Drilling
5:45	6:00	Rig Serv + Lubs.
6:00	6:15	Survey
6:15	12:00	Drilling

12 P.M. TO 8 A.M.		8 A.M. TO 4 P.M.		4 P.M. TO 12 P.M.	
DRILLER	W. Gregg	DRILLER	L. Hunter	DRILLER	W. Gregg
NO. HELPERS	3	NO. HELPERS	4	NO. HELPERS	3

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Hudson's Bay Oil and Gas Company Limited — DAILY DRILLERS REPORT

DATE March 10 /72

WELL NAME	H.B. ET. AL. WILLOW. D-39	LDG. FLG. TO KB	
CONTRACTOR	Commonwealth	TYPE RIG UNIT 34D	K. B. ELEV.
RIG NO.	12.	TOOL PUSHER Al Nourse	GRD. ELEV.

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 858 PROGRESS 7 END 865	START 865 PROGRESS 45 END 910	START 910 PROGRESS 40 END 950

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
2	31966	WD7	8 3/4	843	865	22	3 3/4

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
2	31966	W07	8 3/4	843	910	47	9

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
2	31966	W01	8 3/4	843	950	107	16 1/2

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 x 14	75	50	10 M

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 14	200	90	12 M.

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 15	250	60 - 80	15 - 18

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	5	3 1591	17 48803		5 1/2 2596

SIZE	STANDS	~~SINGLES~~	DRILL COL.	KELLY IN	CORE BBL.
4"	6	3785	17 48803	19.50	2995

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	410	17	17 48803	28	—

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel Caustic L.C.M.	9.6	150		11.5	

ADDITIVES 1500# Gel 100# Soda Ash 100# Caustic 36 sax Sawdust 1 Sax Cane Fiber 6 sax Redwood Flek

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel L.C.M.	8.6	150			

ADDITIVES Gel 2400# Sawdust 20 Sax Soda Ash 800# Fibre 1 Sax. Caustic 50#

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel L.C.M.	8.5	90		12.0	

ADDITIVES Sawdust 30 Sax Soda Ash 300#

CORING

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT.	DEG. AT FT.	DEG. AT FT.

1 1/8 DEG. AT 870 FT.	DEG. AT ~~900~~ FT.	1 1/4 DEG. AT 900 FT.

1° DEG. AT 930 FT.	DEG. AT FT.	DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 AM	12 15	Rig Serv + L.O.Ps.
12 15	3 00	Mix Mud + L.C.M.
3 00	5 00	Drill on L.C.M.
5 00	5 30	Mix L.C.M + Fill Hole @ Full of Line
5 30	6 00	Core Show.
6 00	7 30	Drilling
7 30	8 00	Circ to Clean Hole

DRILLER L. Hunter NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
8 00	8 15	Rig Serv + L.O.Ps.
8 15	8 30	Circ Losing Volume
8 30	9 30	Drilling
9 30	11 15	Build Volume Mix mud + Scrape Clean out 300
11 15	2 00	Drilling
2 00	2 30	Con Survey + Clean out 300
2 30	4 00	Drilling

DRILLER D. McLeod NO. HELPERS 3

FROM	TO	DESCRIPTION OF WORK
4 00	9 45	Drilling
9 45	9 00	Rig Serv + L.O.Ps.
9 00	9 15	Surveys
9 15	12 00	Drilling

DRILLER L. Hunter NO. HELPERS 3

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REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 9 / 72

WELL NAME Hudson's Bay et. al. Willow A-39		LDG. FLG. TO KB	CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
CONTRACTOR Commonwealth	TYPE RIG UNIT 34 D	K. B. ELEV.									
RIG NO. 12	TOOL PUSHER Al Nowm	GRD. ELEV.									T Julian

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 843 PROGRESS 15' END 858	START 858 PROGRESS — END —	START PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 A.M. TO 8 A.M.							
2	31966	W07	8 3/4	843	858	15'	2 1/4
8 A.M. TO 4 P.M.							
2	31966	W07	8 3/4	843		15'	2 1/4
4 P.M. TO 12 P.M.							

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 A.M. TO 8 A.M.			
5 1/2 x 15	200	90	15 M
8 A.M. TO 4 P.M.			
5 1/2 x 15			
4 P.M. TO 12 P.M.			

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12 A.M. TO 8 A.M.					
4"	31591	—	4 8803	26	
8 A.M. TO 4 P.M.					
4	31591	—	4 8803	26	2596
4 P.M. TO 12 P.M.					

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 A.M. TO 8 A.M.					
Gel + Caustic L. C. M.	8.6	150		12.0	
8 A.M. TO 4 P.M.					
Gel Caustic & L.C.M.	8.6.	80		12.0	
4 P.M. TO 12 P.M.					

ADDITIVES (12 A.M. TO 8 A.M.): Gel 2500 # Caustic 100 #
25 Sax Sawdust
5 Sax Cane Fiber

ADDITIVES (8 A.M. TO 4 P.M.): Gell 6000 300 lb Caustic.
50 lb. Lime 300 lb Soda Ash.
15 Fibre 33 sx Sawdust

ADDITIVES (4 P.M. TO 12 P.M.): Gel 1500 #
Caustic 50 #
2 Sax Redwood Fiber

CORING

NO.	FROM	TO	RECOVERED	FORMATION
12 A.M. TO 8 A.M.				
8 A.M. TO 4 P.M.				
4 P.M. TO 12 P.M.				

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.
12 A.M. TO 8 A.M.					
8 A.M. TO 4 P.M.					
4 P.M. TO 12 P.M.					

DRILL STEM TESTS

NO.	INTERVAL	FORMATION
12 A.M. TO 8 A.M.		
8 A.M. TO 4 P.M.		
4 P.M. TO 12 P.M.		

VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
12 A.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

GAS TO SURFACE	MIN. @	MCF/D MAX.
12 A.M. TO 8 A.M.		
8 A.M. TO 4 P.M.		
4 P.M. TO 12 P.M.		

OIL TO SURFACE	MIN. @	BBL/D MAX.
12 A.M. TO 8 A.M.		
8 A.M. TO 4 P.M.		
4 P.M. TO 12 P.M.		

RECOVERY:

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP
12 A.M. TO 8 A.M.						
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.						

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

12 A.M. TO 8 A.M.

FROM	TO	DESCRIPTION OF WORK
1200	1215	Rig Serv + L.D.S.
1215	130	Trip out + L Blind Rams
130	300	Run in @ Bit # 2
300	430	Mix Mud + L.C.M.
430	515	Drill Blind 843 - 849'
515	600	Circ
600	730	Drilling
730	800	Mix Mud

DRILLER L. Hunter NO. HELPERS 4

8 A.M. TO 4 P.M.

FROM	TO	DESCRIPTION OF WORK
800	815	Rig Serv & BOP
815	900	Mix mud clean out pumps
900	915	Pump mud down hole (No Returns)
915	1005	Mix mud & Lost Circ Mat.
1015		Trip out w/ Bit Break Circ & Run in & Circ on way in Sta
	100	at a time & Mix mud
100	145	Circ Two Sds off Btm (Lost Circ)
145	400	Mix mud & Lost Circ Mat

DRILLER D. McGregor NO. HELPERS 3

4 P.M. TO 12 P.M.

FROM	TO	DESCRIPTION OF WORK
400	415	Rig Serv & BOP
415		Blow mud lines & Trip out
	700	to Pick up Stabilizer
700	800	Drill on Trip
800	1000	Pump Down Hole @ Some Returns
1000	1100	Clean out Pumps
1100	1200	Fill Tanks & Mix Mud

DRILLER L. Hunter NO. HELPERS 4

52 - 88AX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 8 / 72

WELL NAME Hudson's Bay Et. Al. Willow A-39-
CONTRACTOR Commonwealth
RIG NO. 12
TYPE RIG Unit 34 D
TOOL PUSHER Al Nourse
LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T. Culbert

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 722 PROGRESS 33 END 755	START 755 PROGRESS 40 END 795	START 795 PROGRESS 48 END 843

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12:00 to 8:00 A.M.							
1	29715	WD7	8 3/4	716	755	39	8 3/4
8:00 A.M. to 4:00 P.M.							
1	29715	WD7	8 3/4	716	795	79	15
4:00 P.M. to 12:00 P.M.							
1	29715	WD7	8 3/4	716	843	127	19

DRILLING DATA

12 P.M. TO 8 A.M. LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 14	200	80	10 - 15
8 A.M. TO 4 P.M. LINER SIZE	**PUMP PRESSURE**	**TABLE SPEED**	**WEIGHT ON BIT**
5 1/2 x 14	350	80	15 - 20
4 P.M. TO 12 P.M. LINER SIZE	**PUMP PRESSURE**	**TABLE SPEED**	**WEIGHT ON BIT**
5 1/2 x 14	200	80	15 - 25

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12:00 to 8:00 A.M.	4"	3 2 2 1 3 2	1	17 488.03	21	—
8:00 A.M. to 4:00 P.M.	4"	4 2 5 2.74	—	17 488.03	30	25.96
4:00 P.M. to 12:00 P.M.	4"	3 1 5 9 1	—	17 488.03	15	—

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12:00 to 8:00 A.M.	Gel Dr. 68	8.2	60		11.0	
	+ L.C.M.	8.2	65		11.0	
	ADDITIVES 200 # Bycarb.					
8:00 A.M. to 4:00 P.M.	Gel Lignite	8.7	48			
	ADDITIVES 3000 # GEL 30 SX SAWDUST 1 SX FIBRE 200 # SODA ASH 3 GAL. DV 68 200 # CAUSTIC					
4:00 P.M. to 12:00 P.M.	Gel Caustic	8.7	50		12.0	
	L.C.M.	8.7				
	ADDITIVES Gel 4000 # 100 # Soda Ash 50 sax Sawdust 11 Cane Fiber 100 # Caustic					

CORING

NO.	FROM	TO	RECOVERED	FORMATION
8:00 A.M. to 4:00 P.M.				
1	775	795	20	Shale

SURVEY

12 P.M. TO 8 A.M.	DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.
8 A.M. TO 4 P.M.						
	7/8 DEG. AT 775	FT.	DEG. AT	FT.	DEG. AT	FT.
4 P.M. TO 12 P.M.						
	3/4 DEG. AT 806	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

8:00 A.M. to 4:00 P.M.
NO. — INTERVAL — FORMATION
VALVE OPEN (MINS.) — INITIAL SHUT-IN (MINS.) — FINAL SHUT-IN (MINS.)
GAS TO SURFACE — MIN. @ — MCF/D MAX.
OIL TO SURFACE — MIN. @ — BBL/D MAX.
~~RECOVERY:~~ Lost Circ 761-765 — 100 BBLs.
PRESSURES: IHP — FHP — IFP — FFP — ISIP — FSIP

4:00 P.M. to 12:00 P.M.
NO. — INTERVAL — FORMATION
VALVE OPEN (MINS.) — INITIAL SHUT-IN (MINS.) — FINAL SHUT-IN (MINS.)
GAS TO SURFACE — MIN. @ — MCF/D MAX.
OIL TO SURFACE — MIN. @ — BBL/D MAX.
RECOVERY:
PRESSURES: IHP — FHP — IFP — FFP — ISIP — FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

	FROM	TO	DESCRIPTION OF WORK
12:00 to 8:00 A.M.	1200	1215	Rig Serv. & W.B. o. P's
	1215	800	Drilling
8:00 A.M. to 4:00 P.M.	800	1030	Drilling
	1030	1145	Mix Mud & Lost Circ Material
	1145	1245	Drilling
	1245	115	Survey Rig Serv & Trips
	115	400	Drilling
4:00 P.M. to 12:00 P.M.	400	415	Rig Serv & Trips
	415	500	Drilling
	500	515	Survey
	515	700	Drilling
	700		Mix Mud & L.C.M. Pump Down
		800	Hole (No Returns)
	800	830	Mix Gel & L.C.M.
	1030	1100	Drill Blind 832' - 843'

DRILLER L. Hunter — NO. HELPERS 4
DRILLER W. McGregor — NO. HELPERS 4
DRILLER L. Hunter — NO. HELPERS 4

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REV. 2/71△

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 7. 72

WELL NAME H. B. ET. AL. Willow A39 | CONTRACTOR Commonwealth | TYPE RIG Unit 34D | RIG NO. 12 | TOOL PUSHER

LDG. FLG. TO KB | K. B. ELEV. | GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T. Fulton

12 P.M. TO 8 A.M.

DEPTH: START 716 PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
1	29715	WDT	8 3/4	716			

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Tested					

Manifold Kelly Cock to 1000psi OK
Motors Shut off & Working
ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	200	Run in W/ Bit
200		Pressure test Pipe Rams
	300	Hydril & Manifold.
300	500	Drill out Cement & Shoe.
500	530	Surging Bit Nozzles
530	600	Cleaning out to Return

DRILLER D. Hunter NO. HELPERS 4

8 A.M. TO 4 P.M.

START PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
		158.66	4880.3	41	35.96

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES 6000 lb. Gel. 600 Sawdash
100 lb Caustic 2 Gal Quebracho 8 sx Fibre

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
800		Blow mud line & Trip to
		run Rock Bit Clean Tanks
	1100	Drill Rock Hole Taking Water
1100	100	Case mud @ 700'
100	330	Clean out Hole to 712'
330	400	Mix mud & Lost Circ Mat.

DRILLER W. McGregor NO. HELPERS 4

4 P.M. TO 12 P.M.

START 716 PROGRESS 6 END 722

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
1	29715	WDT	8 3/4	716	722	6	1

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2 x 14	100	80	10 M

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	2	1	4880.3	19	—

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel + L. C. M.		80			

ADDITIVES 40 sx Sawdust 1 gal. D.V. 68 Gel. 2000#

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
1100	515	Mix mud & Lost Circ material
515	645	Trip out to run Rock Bit
645	930	Mix mud & Lost Circ Mat.
930	1030	Run in W/ Bit
1030	1100	Clean to Bottom 712'- 716'
11	1200	Drill 8 3/4" Hole

DRILLER D. Hunter NO. HELPERS 4

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REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 6 72

WELL NAME H. B. ET. AL. Willow A-39	LDG. FLG. TO KB	CASING RECORD	DEPTH / SIZE / WEIGHT / GRADE / CEMENT / ADD. / PLUG DOWN / COMPANY SUPERVISOR
CONTRACTOR	TYPE RIG		
RIG NO.	TOOL PUSHER Al Nourn		T. Tilbar
	GRD. ELEV.		

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 568	START	START
BIT RECORD	NO. / SERIAL NO. / TYPE / SIZE / FROM / TO / FOOTAGE / HRS. RUN	NO. / SERIAL NO. / TYPE / SIZE / FROM / TO / FOOTAGE / HRS. RUN	NO. / SERIAL NO. / TYPE / SIZE / FROM / TO / FOOTAGE / HRS. RUN
DRILLING DATA	LINER SIZE / PUMP PRESSURE / TABLE SPEED / WEIGHT ON BIT	LINER SIZE / PUMP PRESSURE / TABLE SPEED / WEIGHT ON BIT	LINER SIZE / PUMP PRESSURE / TABLE SPEED / WEIGHT ON BIT
DRILLING STRING	SIZE / STANDS / SINGLES / DRILL COL. / KELLY IN / CORE BBL.	SIZE / STANDS / SINGLES / DRILL COL. / KELLY IN / CORE BBL.	SIZE / STANDS / SINGLES / DRILL COL. / KELLY IN / CORE BBL.
MUD RECORD	TYPE OF MUD / WEIGHT / VIS / WL / PH / FC ADDITIVES USED 16 SAX CEMENT TO CEMENT CASING FROM TOP.	TYPE OF MUD / WEIGHT / VIS / WL / PH / FC ADDITIVES	TYPE OF MUD / WEIGHT / VIS / WL / PH / FC ADDITIVES
CORING	NO. / FROM / TO / RECOVERED / FORMATION	NO. / FROM / TO / RECOVERED / FORMATION	NO. / FROM / TO / RECOVERED / FORMATION
SURVEY	DEG. AT FT. / DEG. AT FT. / DEG. AT FT.	DEG. AT FT. / DEG. AT FT. / DEG. AT FT.	DEG. AT FT. / DEG. AT FT. / DEG. AT FT.
DRILL STEM TESTS	NO. / INTERVAL / FORMATION VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.) GAS TO SURFACE / MIN. @ / MCF/D MAX. OIL TO SURFACE / MIN. @ / BBL/D MAX. RECOVERY: PRESSURES: IHP / FHP / IFP / FFP / ISIP / FSIP	NO. / INTERVAL / FORMATION VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.) GAS TO SURFACE / MIN. @ / MCF/D MAX. OIL TO SURFACE / MIN. @ / BBL/D MAX. RECOVERY: PRESSURES: IHP / FHP / IFP / FFP / ISIP / FSIP	NO. / INTERVAL / FORMATION VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.) GAS TO SURFACE / MIN. @ / MCF/D MAX. OIL TO SURFACE / MIN. @ / BBL/D MAX. RECOVERY: PRESSURES: IHP / FHP / IFP / FFP / ISIP / FSIP
REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS	FROM / TO / DESCRIPTION OF WORK 1200 / 800 / Cut off Casing & Weld on Bowl	FROM / TO / DESCRIPTION OF WORK 800 / 1045 / Weld on Casing Bowl. Pressure To 1500 PSI OK. 1045 / 400 / Hook up BOP	FROM / TO / DESCRIPTION OF WORK 400 / 800 / Remove BOP
	DRILLER B. Hunter NO. HELPERS 4	DRILLER D. McGregor NO. HELPERS 4	DRILLER NO. HELPERS

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REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 5 72

WELL NAME Hudson's Bay Ft. Al. Willow A-39
CONTRACTOR Commonwealth TYPE RIG UNIT 34D
RIG NO. 12 TOOL PUSHER

LDG. FLG. TO KB
K. B. ELEV. 1290'
GRD. ELEV. 1900

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
	568'	13 3/8	48#	H.S.	600	270 cu	540 PM	T. Fuller

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 538 PROGRESS 30 END 568	START PROGRESS END	START PROGRESS END

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
3C	JG 234	DGT	17½	375	568	193	30¼

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½ x 14	200	80	10 – 15

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	1 78 3	20	11 3168 7	40	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
LIME GEL	9.7	52			

ADDITIVES

ADDITIVES 2 Sax Cane Fibre Added to Ease 200 Sax Cement

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	1215	Rig Serv
1215	200	Ream
200	300	Work on Conductor BBL.
300	700	Ream
700	800	Trip

DRILLER L. Hunter NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
800	815	Rig Ser.
815		Break Down BT Sub – Boot
	900	Repair – Lay Down w/ Ork D.C
900	1000	Rig To Run 13 3/8 Casing
1000	200	Run 18 Joints 13 3/8 Casing
200	400	Rig To Circ – Circulating

DRILLER [illegible] NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
400	545	Cement & Final Plug.
545	1200	W.O.C.

DRILLER NO. HELPERS

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Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 4th 72

WELL NAME H.B. Et. Al. Willow A-39		LDG. FLG. TO KB	
CONTRACTOR Commonwealth	TYPE RIG UNIT 34 D	K. B. ELEV.	
RIG NO. 12	TOOL PUSHER	GRD. ELEV.	

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN

COMPANY SUPERVISOR T Taylor

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 394 PROGRESS 56 END 450	START 450 PROGRESS 50 END 500	START 500 PROGRESS 30 END 530

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
3C	J6234	OGJ	17½	375	450	75	12

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
3C	J6234	OGJ	17½	375	500	125	19½

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
3C	J6234	OGJ	17½	375	530	155	24½

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½ x 14	200	80	10 - 12

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½ x 14	200	80	10 - 15

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½ x 14	200	80	10 - 15

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	94	90	3 7" 8 6" 316 87	23	

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	157	80	316 87	10	15.77

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	2 157	80	316 87	40	—

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Lime Gel	9.3	70			
	9.3	69			

ADDITIVES

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Lime Gel	9.4	69			
	9.4	68		9.0	

ADDITIVES

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel Lime	9.9	55		9.0	
	10.0	55			

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT.	DEG. AT FT.	DEG. AT FT.

DEG. AT FT.	DEG. AT FT.	DEG. AT FT.

DEG. AT FT.	DEG. AT FT.	DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS

FROM	TO	DESCRIPTION OF WORK
[illegible]		
12⁰⁰	12¹⁵	Rig Serv
12¹⁵	12⁴⁵	Hook up Cellar Jet
12⁴⁵	8⁰⁰	Reaming

DRILLER D. Hunter NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
8⁰⁰	10³⁰	Reaming
10³⁰	11⁰⁰	Cen Rig Ser & mud Pump
11⁰⁰	4⁰⁰	Reaming

DRILLER D. McGregor NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
4⁰⁰	9⁰⁰	Reaming
9⁰⁰	12⁰⁰	Trip To Check D.T

DRILLER D. Hunter NO. HELPERS 4

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REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 3rd 1972.

WELL NAME	H.B. et. Al Willow A. 39	LDG. FLG. TO KB	
CONTRACTOR	(Command) NEALTH	TYPE RIG UNIT 340	K. B. ELEV. 10.90
RIG NO.	12	TOOL PUSHER Oz Nour	GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								Tollefson

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 375' PROGRESS END	START 375 PROGRESS END	START 375' PROGRESS 19 END 394

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

12 P.M. TO 8 A.M.							
3.C	JG234	DCS	17½	375	394	19	4¾

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

4 P.M. TO 12 P.M.			
5½ x 14	100	80	10

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

4 P.M. TO 12 P.M.					
	31.36	5-7⅞ 8-6⅜	316.87	31	15.66

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

ADDITIVES Gel 2000# Lime 50# Bi Carb 100# Caustic 50#

4 P.M. TO 12 P.M.					
Gel	9.1	80		9.5	
Lime	9.1	88		9.5	

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESS-URES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	800	WAIT ON 17½" REAMER

FROM	TO	DESCRIPTION OF WORK
800	400	WAIT ON 17½" REAMER
		RUN IN W/ 12¼" BIT
		CIRC + CLEAN PILOT HOLE TO 6.16'
		REMOVE L. C. M. FROM MUD BUILD VOLUM + COND. MUD

FROM	TO	DESCRIPTION OF WORK
400	615	WAIT ON 17½" REAMER.
		TRIP OUT 12¼ BIT
615	715	MAKE UP 17½" BIT & RUN IN
715	1200	DRILLING 17½" HOLE.

DRILLER W. McGregor NO. HELPERS 4

DRILLER L. Hunter NO. HELPERS 4

DRILLER W. McGregor NO. HELPERS 4

52 - 8BAX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 2nd 1972.

WELL NAME	H.B. ET. AL Willow A-39	LDG. FLG. TO KB	
CONTRACTOR	Common Wealth	TYPE RIG	UNIT 34.D
RIG NO.	12	TOOL PUSHER	A. Norén
		K. B. ELEV.	10.90
		GRD. ELEV.	

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN

COMPANY SUPERVISOR: T. Hulbert

	12 P.M. TO 6 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 307 PROGRESS 35 END 342	START 342 PROGRESS 28 END 370	START 370 PROGRESS 5 END 375

BIT RECORD

	NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 6 A.M.	2C	Pilot	Reamer	17½	296	342	46	9¼
8 A.M. TO 4 P.M.	2C	Pilot	Reamer	17½	296	370	74	15¼
4 P.M. TO 12 P.M.	2C	Pilot	Reamer	17½	296	375	79	17½

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 6 A.M.	5½ x 14	175	130	10-6
8 A.M. TO 4 P.M.	5½ x 14	150	50-80	4-8M
4 P.M. TO 12 P.M.	5½ x 14	150	50-80	4-8M

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12 P.M. TO 6 A.M.	4"	156.31		147.28 2C.	20.70	17.71
8 A.M. TO 4 P.M.	4"	—	—	3-7" 9-6" 316.97	36	
4 P.M. TO 12 P.M.			3-7" 8-6"	316.87	41	17.71

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 6 A.M.	Lime	9.5	90		9.5	
	Gel	9.5	88			
	ADDITIVES Gel 4000# Lime 50#					
8 A.M. TO 4 P.M.	Lime+Gel	9.5	100			
		9.6	90			
	ADDITIVES					
4 P.M. TO 12 P.M.	Lime Gel	9.6	90			
	ADDITIVES					

CORING

	NO.	FROM	TO	RECOVERED	FORMATION
12 P.M. TO 6 A.M.					
8 A.M. TO 4 P.M.					
4 P.M. TO 12 P.M.					

SURVEY

	DEG. AT FT.	DEG. AT FT.	DEG. AT FT.
12 P.M. TO 6 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

DRILL STEM TESTS

12 P.M. TO 6 A.M.	NO. INTERVAL FORMATION VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.) GAS TO SURFACE MIN. @ MCF/D MAX. OIL TO SURFACE MIN. @ BBL/D MAX. RECOVERY: PRESS-URES IHP FHP IFP FFP ISIP FSIP
8 A.M. TO 4 P.M.	NO. INTERVAL FORMATION VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.) GAS TO SURFACE MIN. @ MCF/D MAX. OIL TO SURFACE MIN. @ BBL/D MAX. RECOVERY: PRESS-URES IHP FHP IFP FFP ISIP FSIP
4 P.M. TO 12 P.M.	NO. INTERVAL FORMATION VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.) GAS TO SURFACE MIN. @ MCF/D MAX. OIL TO SURFACE MIN. @ BBL/D MAX. RECOVERY: PRESS-URES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

	FROM	TO	DESCRIPTION OF WORK
12 P.M. TO 6 A.M.	12:00	1:00	Reaming 12¼" To 17½" Hole
	1:00	1:15	Rig Ser.
	1:15	8:00	Reaming 17½" Hole.
8 A.M. TO 4 P.M.	8:00	8:15	Serv Rig
	8:15	9:00	Ream
	9:00	9:30	Clean out Pump (C-250)
	9:30	12:15	Ream
	12:15	1:00	Laid Down 5 Singles + Pick up 6 D.C.
	1:00	2:30	Ream
	2:30	3:15	Clean out Pump P-300 + on Rig Cellar Set
	3:15	4:00	Ream
4 P.M. TO 12 P.M.	4:00	4:15	Serv Rig
	4:15	6:30	Ream
	6:30	8:00	Work on Pump D.300 Clean Valves + Check Head Flywheel.
	8:00	8:30	Trip out To check Rmr. Side
	8:30	12:00	Wait on 17½" Reamer
			Cement Washout in Cellar with 10 Sax Cement 2% Cal.

12 P.M. TO 6 A.M.	DRILLER W. McGregor NO. HELPERS 4
8 A.M. TO 4 P.M.	DRILLER B. Hunter NO. HELPERS 4
4 P.M. TO 12 P.M.	DRILLER W. McGregor NO. HELPERS 4

52 - 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE March 1 1972

WELL NAME H. B. ET AL Willow A-39		LDG. FLG. TO KB	
CONTRACTOR Commonwealth	TYPE RIG Unit 340	K. B. ELEV. 10.90	
RIG NO. 12	TOOL PUSHER Al Noren	GRD. ELEV.	

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T. Nielsen

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 200 PROGRESS 60 END 260	START 260 PROGRESS 30 END 290	START 290 PROGRESS 17 END 307

BIT RECORD

	NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.	1C	Pilot Reamer	12¼		0	260	260	29
8 A.M. TO 4 P.M.	1C	Pilot Reamer	17½		0	290	290	33½
4 P.M. TO 12 P.M.	1C	Pilot Reamer	17½		[illegible]0	296	296	34¼
	2C	Pilot Reamer	17½		296	307	11	13¼

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 8 A.M.	5½ x 14	150	130	8.
8 A.M. TO 4 P.M.	5½ x 14	300	130	10 -
4 P.M. TO 12 P.M.	5½ x 14	150	130	8 - 10

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12 P.M. TO 8 A.M.	4"	62-1/2	—	3-7"2-6" 147.28	33.	Subs 1221
8 A.M. TO 4 P.M.	4"	94	1	3-7"26 24-728	31	
4 P.M. TO 12 P.M.	4"	125.43.	—	2-6" 147.28	17	17 71

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.	Lime Gel	9.2	64		10.5	
		9.3	68			
8 A.M. TO 4 P.M.	Lime Gel	9.3	95			
4 P.M. TO 12 P.M.	Lime-Gel	9.3	54			

ADDITIVES 12 P.M. TO 8 A.M.: Gel = 3500#

ADDITIVES 8 A.M. TO 4 P.M.:

ADDITIVES 4 P.M. TO 12 P.M.:

CORING

	NO.	FROM	TO	RECOVERED	FORMATION
12 P.M. TO 8 A.M.					
8 A.M. TO 4 P.M.					
4 P.M. TO 12 P.M.					

SURVEY

	DEG. AT FT.	DEG. AT FT.	DEG. AT FT.
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

DRILL STEM TESTS

12 P.M. TO 8 A.M.
NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

8 A.M. TO 4 P.M.
NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

4 P.M. TO 12 P.M.
NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

12 P.M. TO 8 A.M.

FROM	TO	DESCRIPTION OF WORK
12 00	12 15	Rig Service
12 15	8 00	Reaming

8 A.M. TO 4 P.M.

FROM	TO	DESCRIPTION OF WORK
8 00	8 15	Rig Serv
8 15		Repair C-250 Pump
		Pull Valve Seat + Replace
	1130	Head (opp Flywheel Side)
1130	4 00	Reaming

4 P.M. TO 12 P.M.

FROM	TO	DESCRIPTION OF WORK
4 00	4 15	Rig Serv
4 15	5 00	Reaming
5 00	5 30	Work on C-250 Pump
5 30	6 00	Trip out
6 00	6 30	Change 17½" Reamers
6 30		Weld 12¼" Bit to Reamer.
	8 00	- Run in w/ Reamer.
8 00	10 15	Reaming w/ Work Gauge Hole 60'
10 15	12 00	Reaming 12¼ To 17½" Hole

DRILLER Al Noren NO. HELPERS 4

DRILLER B. Hunter NO. HELPERS 4

DRILLER D. McGregor NO. HELPERS 4

52 - 8BAX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Feb 29/72 (March)

WELL NAME H.B. ETAL WILLOW A-39
CONTRACTOR COMMONWEALTH TYPE RIG UNIT 34-D
RIG NO. 12 TOOL PUSHER AL NOREN

LDG. FLG. TO KB
K. B. ELEV. 10.90
GRD. ELEV.

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
							T. Fisher

12 P.M. TO 8 A.M.

DEPTH: START 0 PROGRESS 80 END 80

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
1-C	Pilot Reamer		12½	0	80	80	7¾

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½	250	130	3-5

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4" FH.	—	—	1-7"		

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
	9.1	60	C		

ADDITIVES Gel = 200#
Sawdust = 20 sx
Caustic = 50 #

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	12 15	Rig Service
12 15	8 00	Reaming

DRILLER Al Noren NO. HELPERS 4

8 A.M. TO 4 P.M.

DEPTH: START 80 PROGRESS 70 END 150

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
1C	Pilot Reamer		17½	0	150	150	15½

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½ x 14	250	130	3-7

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"			8-7¾" 90 39	41	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Lime Gel	9.2	85			

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
8 00	8 15	Rig Serv.
8 15	4 00	Reaming

DRILLER Duncan Hunter NO. HELPERS 4

4 P.M. TO 12 P.M.

DEPTH: START 150 PROGRESS 50 END 200

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
1C	Pilot Reamer		17½	0	200	200	21¼

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½ x 14	250	130	5-8

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	—	—	3/7" 2/6" 147.28	35'	SMS 5 17.21

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Lime Gel	9.4	85			
	9.4	80			

ADDITIVES Sawdust 10 sks
Fiber Seal 5 sks

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY: DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

FROM	TO	DESCRIPTION OF WORK
4 00	4 15	Rig Serv
4 15	5 15	Mix L.C.M. Try To Plug Off Washed out Conductor BBL.
5 15	10 30	Reaming
10 30	10 45	Clean Out Pump
10 45	11 00	Reaming
11 00	11 45	Change Head In D-300
11 45	12 00	Reaming

DRILLER Al Noren NO. HELPERS 4

APR 10 1972 CONSERVATION ENGINEERS

52 - 8BAX4
REV. 2/71△

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE FEB. 28 1972

WELL NAME	H.B. ETAL WILLOW A-39	LDG. FLG. TO KB	
CONTRACTOR	COMMONWEALTH	TYPE RIG UNIT 34-0	K. B. ELEV. 10.90
RIG NO.	12	TOOL PUSHER AL NOREN	GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								J. Fulton

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 172 PROGRESS 154 END 326	START 326 PROGRESS 200 END 526	START 526 PROGRESS END

BIT RECORD

	NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.	1B	PILOT REAMER	12¼		0	326	326	14½
8 A.M. TO 4 P.M.	1B	PILOT REAMER	12¼		0	526	526	22¼
4 P.M. TO 12 P.M.	1-B	PILOT REAMER	12¼		0			

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 8 A.M.	5½	150	80	5 - 7
8 A.M. TO 4 P.M.	5½ X 14	400	120	5 - 8 M
4 P.M. TO 12 P.M.	5½ x 14			

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12 P.M. TO 8 A.M.	4"	9507		3-7" 2-6" 147.25		Sabs 12.05
8 A.M. TO 4 P.M.	4" I.F.	5 3 4523	1	3-7" 2-6" 147.25	16	
4 P.M. TO 12 P.M.	4" F.H.					

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.	LIME GEL	9.1	64	9.1	7½	
8 A.M. TO 4 P.M.	LIME GEL	9.1	68			
4 P.M. TO 12 P.M.	LIME GEL	9.2	80			

ADDITIVES (12 P.M. TO 8 A.M.): GEL = 3100 # SAWDUST = 20 SKS CAUSTIC = 50 # SODA ASH = 200 #

ADDITIVES (4 P.M. TO 12 P.M.): GEL # 2000 SAWDUST = 20 SKS

CORING

	NO.	FROM	TO	RECOVERED	FORMATION
12 P.M. TO 8 A.M.					
8 A.M. TO 4 P.M.					
4 P.M. TO 12 P.M.					

SURVEY

	DEG. AT FT.	DEG. AT FT.	DEG. AT FT.
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

DRILL STEM TESTS

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
NO.			
INTERVAL			
FORMATION			
VALVE OPEN (MINS.)			
INITIAL SHUT-IN (MINS.)			
FINAL SHUT-IN (MINS.)			
GAS TO SURFACE	MIN. @ MCF/D MAX.	MIN. @ MCF/D MAX.	MIN. @ MCF/D MAX.
OIL TO SURFACE	MIN. @ BBL/D MAX.	MIN. @ BBL/D MAX.	MIN. @ BBL/D MAX.
RECOVERY:			
PRESSURES	IHP FHP IFP FFP ISIP FSIP	IHP FHP IFP FFP ISIP FSIP	IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

	FROM	TO	DESCRIPTION OF WORK
12 P.M. TO 8 A.M.	12⁰⁰	12¹⁵	Rig Service
	12¹⁵	8⁰⁰	Reaming
8 A.M. TO 4 P.M.	7⁰⁰	8¹⁵	Rig Serv
	8¹⁵	4⁰⁰	Reaming
4 P.M. TO 12 P.M.	4⁰⁰	4¹⁵	Rig Service
	4¹⁵		Reaming

	DRILLER	NO. HELPERS
12 P.M. TO 8 A.M.	Al Noren	4
8 A.M. TO 4 P.M.	B Hunter	4
4 P.M. TO 12 P.M.	Al Noren	4

RECEIVED MAR 0 1972 OIL AND GAS CONSERVATION ENGINEER

52 - 8B4X4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE FEB 27, 1972

WELL NAME	H.B. ET AL WILLOW A-39	LDG. FL.G. TO KB	
CONTRACTOR	COMMONWEALTH	TYPE RIG UNIT 34-D	K. B. ELEV. 10.90
RIG NO.	12	TOOL PUSHER AL NOREN	GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T. Fisher

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 662 PROGRESS 30 END 692	START 692 PROGRESS 24 END 716	START PROGRESS END

BIT RECORD

	NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.	6	38270	WDT	8 3/4	662	692	30	4 1/4
8 A.M. TO 4 P.M.	6	38270	WDT	8 3/4	662	716	54	7
	16	HOLE OPENER		12 1/4	0	50	50	1
4 P.M. TO 12 P.M.	16	PILOT REAMER		12 1/4	50	172	172	6 3/4

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 8 A.M.	5 1/2	450	130	10.000
8 A.M. TO 4 P.M.	5 1/2	450	130	10 -
4 P.M. TO 12 P.M.	5 1/2	150	80	5.000

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12 P.M. TO 8 A.M.	4"			3/7" 14/16" 48608		~~5405~~ 17.05
8 A.M. TO 4 P.M.	4"			3/7" 14/16" 48608'		
4 P.M. TO 12 P.M.	4"			3-7" 9076	36'	~~5405~~ 17.71

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.		88	55			
		87	60			
8 A.M. TO 4 P.M.	LIME & GEL	9.0	55			
	SAWDUST					
4 P.M. TO 12 P.M.		9.2	54			
		9.0	52			

ADDITIVES (12 P.M. TO 8 A.M.): GEL 3500# Soda Ash 100# ~~Sawdust 145 SKS~~ Caust. 50#

ADDITIVES (8 A.M. TO 4 P.M.):

ADDITIVES (4 P.M. TO 12 P.M.): Gel #2400 SAWDUST 145 KS

CORING

	NO.	FROM	TO	RECOVERED	FORMATION
12 P.M. TO 8 A.M.					
8 A.M. TO 4 P.M.					
4 P.M. TO 12 P.M.					

SURVEY

12 P.M. TO 8 A.M.	1° DEG. AT 670 FT.	DEG. AT FT.	DEG. AT FT.
8 A.M. TO 4 P.M.	3/4 DEG. AT 700 FT.	DEG. AT FT.	DEG. AT FT.
4 P.M. TO 12 P.M.	DEG. AT FT.	DEG. AT FT.	DEG. AT FT.

DRILL STEM TESTS

NO.	INTERVAL FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @ MCF/D MAX.
OIL TO SURFACE	MIN. @ BBL/D MAX.
RECOVERY:	
PRESSURES	IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS.

12 P.M. TO 8 A.M.

FROM	TO	DESCRIPTION OF WORK
12 00	1 00	Mix Mud + Build Vol.
1 00	2 45	Jack Up Rig
2 45	3 00	Rig Service
3 00	4 00	Run In w/Bit #6
4 00	4 30	Drill
4 30	4 45	Survey
4 45	8 00	Drill.

DRILLER Al Noren NO. HELPERS 4

8 A.M. TO 4 P.M.

FROM	TO	DESCRIPTION OF WORK
8 00	9 15	Drilling
9 15	9 30	Rig Serv
9 30	9 45	Survey
9 45	11 15	Drilling
11 15	11 30	Circ Sample
11 30	1 00	Lay Down Drill Pipe + T.B.I. out D.C.
1 00		Rig up to Ream & Weld 8 3/4"
	3 00	Bit to 12 1/4" Hole Opener
3 00	4 00	Ream 8 3/4" Hole to 12 1/4"

DRILLER [illegible] NO. HELPERS 4

4 P.M. TO 12 P.M.

FROM	TO	DESCRIPTION OF WORK
4 00	4 15	Rig Service
4 15	4 30	Reaming
4 30		Pick Up Stabilizer & Change
	5 30	Rubber To 12 1/4"
5 30		Pick up Lay Shock Sub
	6 30	(No X O Sub)
6 30	12 00	Reaming

DRILLER Al Noren NO. HELPERS 4

CONSERVATION DEPARTMENT ... MAR 10 1972 ... CONSERVATION CONSENTED

52 - 8BAX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

Feb 26/72 DATE

WELL NAME HB ET AL WILLOW A-3
CONTRACTOR
RIG NO. 12 COMMONWEALTH
TYPE RIG UNIT 34-D
TOOL PUSHER AL NORAN
LDG. FLG. TO KB
K. B. ELEV. 10.90
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T Nielsen

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 576 PROGRESS 31 END 607	START 607 PROGRESS 31 END 638	START 638 PROGRESS 24 END 662

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	37858	XDV	8¾	~~715~~ 590	590	117	24½
5	22812	WD7	8¾	590	607	17	3

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
5	22812	WD7	8¾	590	638	48	10½

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
5	22812	WD7	8¾	590	662	72	14¼

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½	450	130	10-12 M#

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½	450	130	10-12 M#

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½ X 14	450	130	12-14

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	3	94 3/4 1	3 1/2" 11 1/2"		

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	2 125 45	-	3-7" 11-6" 48608	10'	—

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"	~~4~~ 2 125 45		3-7-11-6" 48608	26'	

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
	8.9	38		10.	
	9.0	45			

ADDITIVES Soda Ash 250 #
GEL 3400 #
CAUSTIC 150 #

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
LIME GEL	9.0	40		10	
	8.9	49			

ADDITIVES GEL 1500 # LIME 100 #
Soda Ash 400 #
CAUSTIC 50 #

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
LIME GEL	8.9	49		10	

ADDITIVES GEL # 1000
CAUSTIC # 100

CORING

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.
¼ DEG. AT	635 FT.				

DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MCF/D MAX.
OIL TO SURFACE MIN @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	12 15	Rig Service
12 15	3 00	Drill
3 00	5 00	Trip For Bit 5-A
5 00	8 00	Drill

FROM	TO	DESCRIPTION OF WORK
8 00	8 15	Rig Serv.
8 15	3 00	Drilling
3 00	3 15	Survey
3 15	4 00	Drilling

FROM	TO	DESCRIPTION OF WORK
4 00	4 15	Rig Serv
4 15	8 00	Drilling
8 00	9 00	Hoist To Commence Con. for BBL.
9 00	9 45	Clean Out Around Conductor BBL
9 45	12 00	Mixing Mud & Circ. Morning

DRILLER E. ZUTZ NO. HELPERS 4
DRILLER Leonard Hunter NO. HELPERS 4
DRILLER Al Noran NO. HELPERS 4

RECEIVED
MAR 1 1972
CONSERVATION DIVISION

52 - 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Feb. 25th 1972.

WELL NAME H.B. et al. Willow A-39
CONTRACTOR Commonwealth TYPE RIG 134 D
RIG NO. 12 TOOL PUSHER Al Nowe

LDG. FLG. TO KB
K. B. ELEV. 10.90
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN

COMPANY SUPERVISOR T. Walker

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 477 PROGRESS 51 END 528	START 528 PROGRESS 20 END 548	START 548 PROGRESS 28 END 576

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	37858	XDV	8¾	473	528	55	8½

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	37858	XDV	8¾	473	548	75	13½

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
4	37858	XDV	8¾	473			

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½	175	130	6M. -10M

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½	200	130	6M

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½"	250	150	10-12

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
		3-T' 14-6"	90.36 395.72	28.89	14.43

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
		1	8	25	

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
4"			486.08		

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel Lime	9.9	50		10	

ADDITIVES

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES Soda Ash 300#
Gel 32 00#

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
Gel-Lime	8.9	50	-	—	—

ADDITIVES Gel 1000#

CORING

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

¾ DEG. AT 484 FT. | ¾ DEG. AT 514 FT. | DEG. AT FT.

1 DEG. AT 541 FT. | DEG. AT FT. | DEG. AT FT.

1 DEG. AT 570 FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESS-URES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	1245	Drill 8¾ Pilot Hole
1245	100	Survey & Rig Ser.
100	530	Drilling
530	545	Survey
545	800	Drilling

FROM	TO	DESCRIPTION OF WORK
800	815	Rig ser.
815	1000	Drill
1000	1100	Fish laydown Collar
1145	300	Drill
300	315	survey
315	400	Drill
		~~twisted off~~ Picked up Fish off Bottom Shot

(20")

FROM	TO	DESCRIPTION OF WORK
400	415	Rig Serv
415	1030	Drilling
1030	1045	Survey
1045	1200	Drilling

DRILLER D. McGregg NO. HELPERS 4

DRILLER E. Fisher NO. HELPERS 4

DRILLER L. Sinclair NO. HELPERS 4

52 - 8BAX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Feb 24 1972.

WELL NAME	H.B. et al Wilson A-39	LDG. FLG. TO KB	
CONTRACTOR	Common Wealth	K. B. ELEV.	10.90
RIG NO.	12.	TYPE RIG	Unit 340
		TOOL PUSHER	
		GRD. ELEV.	

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								J. Tilson

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 366 PROGRESS 50 END 416	START 416 PROGRESS 38 END 454	START 454 PROGRESS 23. END 477

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
3	37860	XDV	8¾	330	416	86	13½
3	37860	XDV	8¾	330	454	124	21
3	37860	XDV	8¾	330	473	143	35¾
4	37858	XDV	8¾	473	477	4	1

DRILLING DATA

12 P.M. TO 8 A.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½	200	130	5M 8M 5M

8 A.M. TO 4 P.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

4 P.M. TO 12 P.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5½	200	130	6M

DRILLING STRING

12 P.M. TO 8 A.M.					
SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
		3-7"	9036		5085
		10-6	28053	3030	1443.

8 A.M. TO 4 P.M.					
SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

4 P.M. TO 12 P.M.					
SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
		3-7"	90.36		5085.
		12-6"	338.04	34'	1443.

MUD RECORD

12 P.M. TO 8 A.M.					
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
	8.5+	57			
	8.5+	55		9.5	

ADDITIVES

8 A.M. TO 4 P.M.					
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES Qel 100#
Sawdust 70 sks.

4 P.M. TO 12 P.M.					
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
	9.1	55			

ADDITIVES

CORING

12 P.M. TO 8 A.M.				
NO.	FROM	TO	RECOVERED	FORMATION

8 A.M. TO 4 P.M.				
NO.	FROM	TO	RECOVERED	FORMATION

4 P.M. TO 12 P.M.				
NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

12 P.M. TO 8 A.M.					
¾ DEG. AT 370 FT.	1 DEG. AT 399 FT.	DEG. AT FT.			

8 A.M. TO 4 P.M.					
½ DEG. AT 426 FT.	DEG. AT FT.	DEG. AT FT.			

4 P.M. TO 12 P.M.					
1 DEG. AT 454 FT.	DEG. AT FT.	DEG. FT.			

DRILL STEM TESTS

12 P.M. TO 8 A.M.		
NO.	INTERVAL	FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @	MCF/D MAX.
OIL TO SURFACE	MIN. @	BBL/D MAX.
RECOVERY:		
PRESSURES	IHP FHP IFP FFP ISIP FSIP	

8 A.M. TO 4 P.M.		
NO.	INTERVAL	FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @	MCF/D MAX.
OIL TO SURFACE	MIN. @	BBL/D MAX.
RECOVERY:		
PRESSURES	IHP FHP IFP FFP ISIP FSIP	

4 P.M. TO 12 P.M.		
NO.	INTERVAL	FORMATION
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
GAS TO SURFACE	MIN. @	MCF/D MAX.
OIL TO SURFACE	MIN. @	BBL/D MAX.
RECOVERY:		
PRESSURES	IHP FHP IFP FFP ISIP FSIP	

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

12 P.M. TO 8 A.M.		
FROM	TO	DESCRIPTION OF WORK
1200	1230	Dale Pilot Hole
1230	1245	Rig Ser. & Survey
1245	500	Drill
500	515	Survey
515	800	Drill

8 A.M. TO 4 P.M.		
FROM	TO	DESCRIPTION OF WORK
800	815	Drill R.S.S.E.W.
815	1000	Drill
1000	1015	survey
1015	400	Drill

4 P.M. TO 12 P.M.		
FROM	TO	DESCRIPTION OF WORK
400	430	Rig Serv. & survey
430	915	Drill
915		Trip To Change Bits
	1100	Change Boot Rubber on Stabilizer
1100		Drill
		1200

DRILLER W. McGregor NO. HELPERS 4

DRILLER C. Zeltz NO. HELPERS 5

DRILLER NO. HELPERS 4

52 - 8BAX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Feb 23rd 1972.

WELL NAME H.B. ET AL Willow A-39
CONTRACTOR Common Wealth
RIG NO. 12
TYPE RIG Unit 3 Double
TOOL PUSHER

LDG. FLG. TO KB
K. B. ELEV. 10.90
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T. Tudor

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 232. PROGRESS 53 END 285	START 285 PROGRESS 45 END 330	START 330 PROGRESS 36 END 366

BIT RECORD

	NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.	2	38197	X16	8 3/4	214	285	71	10 1/2
8 A.M. TO 4 P.M.	2	38197	X16	8 3/4	285	330	45	18
	3	DB46P	ADU	8 3/4	330			
4 P.M. TO 12 P.M.	3	37860	XDV	8 3/4	330	366	36	6

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 8 A.M.	5 1/2	100	90	15-18
8 A.M. TO 4 P.M.				
4 P.M. TO 12 P.M.	5 1/2	100	130	5 M.

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12 P.M. TO 8 A.M.				3-7 90.36 6-6 171.04	10'	1443
8 A.M. TO 4 P.M.				3 7 68	27	
4 P.M. TO 12 P.M.			3-7 8-6	9036 225.80	36.41	1443

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.	Gell.	8.6	57		10.	
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.	Gel Lime		60			

ADDITIVES (12 P.M. TO 8 A.M.): Gel 1800 lb. Caustic 50 Sawdust 10 Sax.
ADDITIVES (8 A.M. TO 4 P.M.): Del 3000' sawdust 30 lb lime 100 lb Caustic 100 lb
ADDITIVES (4 P.M. TO 12 P.M.): Sawdust 15 Sax 1000 lb Gel

CORING

	NO.	FROM	TO	RECOVERED	FORMATION
12 P.M. TO 8 A.M.		330			
8 A.M. TO 4 P.M.		330			
4 P.M. TO 12 P.M.					

SURVEY

12 P.M. TO 8 A.M.	1° DEG. AT 279 FT.	DEG. AT FT.	DEG. AT FT.
8 A.M. TO 4 P.M.	3/4 DEG. AT 317 FT.	DEG. AT FT.	DEG. AT FT.
4 P.M. TO 12 P.M.	1 DEG. AT 344 FT.	DEG. AT FT.	DEG. AT FT.

DRILL STEM TESTS

	NO.	INTERVAL	FORMATION	VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)	GAS TO SURFACE	OIL TO SURFACE	RECOVERY:	PRESSURES
12 P.M. TO 8 A.M.							MIN. @ MCF/D MAX.	MIN. @ BBL/D MAX.		IHP FHP IFP FFP ISIP FSIP
8 A.M. TO 4 P.M.							MIN. @ MCF/D MAX.	MIN. @ BBL/D MAX.		IHP FHP IFP FFP ISIP FSIP
4 P.M. TO 12 P.M.							MIN. @ MCF/D MAX.	MIN. @ BBL/D MAX.		IHP FHP IFP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12 P.M. TO 8 A.M.		
1200	330	Drill Pilot Hole
330	345	Rig Ser
345	745	Drill
745	800	Survey.
8 A.M. TO 4 P.M.		
800	815	Rig serv.
815	115	Drill 8 3/4
115	130	survey
130	400	Drill
4 P.M. TO 12 P.M.		
400	415	Rig serv
415	430	mix mud & loss c.i.c.
430	500	Drill
500	505	Trip
505	715	Drill
715	730	survey
730	1200	Drill

DRILLER (12 P.M. TO 8 A.M.) [signature] NO. HELPERS 4
DRILLER (8 A.M. TO 4 P.M.) [signature] NO. HELPERS 5
DRILLER (4 P.M. TO 12 P.M.) NO. HELPERS

FEB 28 1972 CONSERVATION

52 - 88AX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Feb. 22/72.

WELL NAME	HB ET AL Wilkon A-39	LDG. FLG. TO KB	
CONTRACTOR	Commonwealth	TYPE RIG Unit 34-D	K. B. ELEV. 1090
RIG NO.	12	TOOL PUSHER	GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T Shulhan

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START 44 PROGRESS 44 END 88	START 88 PROGRESS 106 END 193	START 193 PROGRESS 39 END 232.

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12:00 to 8:00							
1	38204	x16	8 3/4	0	88	88	10 3/4
8:00 to 4:00							
1	38204	x16	8 3/4	88	193	193	18 1/4
1	38178	HR	8 3/4	RR			
4:00 to 12:00							
1	38204	x16	8 3/4	193	214	214	21 1/2
2	38197	x16	8 3/4	214	232.	18	3.

DRILLING DATA

12 P.M. TO 8 A.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2	0	130	2-4 5M

8 A.M. TO 4 P.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2	100		

4 P.M. TO 12 P.M.			
LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2	100	130-90	8 m 15

DRILLING STRING

12 P.M. TO 8 A.M.						
SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.	
			2/6302	0	1582.	1 Comb BBL Stab i Sub to

8 A.M. TO 4 P.M.					
SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
6	8		177 79	31	

4 P.M. TO 12 P.M.					
SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
		202.77	5 7/8 4 6"	41.80	1448.

MUD RECORD

12 P.M. TO 8 A.M.						
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC	
Gel Caustic	8.5	38				
Lime						
ADDITIVES Gel 1100 lb. Caustic 100 lb.						
Ag Dust 12 sx						

8 A.M. TO 4 P.M.						
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC	
ADDITIVES Gel [illegible] Sawdust [illegible] Caustic [illegible]						

4 P.M. TO 12 P.M.						
TYPE OF MUD	WEIGHT	VIS	WL	PH	FC	
	8.5	54				
	8.5	60				
ADDITIVES Gel 4600# Soda ash 600# Sawdust 45 sacks Caustic 150#						

CORING

12 P.M. TO 8 A.M.				
NO.	FROM	TO	RECOVERED	FORMATION

8 A.M. TO 4 P.M.				
NO.	FROM	TO	RECOVERED	FORMATION
	88	193	106	Rock

4 P.M. TO 12 P.M.				
NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

12 P.M. TO 8 A.M.									
1°	DEG. AT	73	FT.	DEG. AT	FT.	DEG. AT	FT.		

8 A.M. TO 4 P.M.									
3/4	DEG. AT	118	FT.	1/2	DEG. AT	173	FT.	DEG. AT	FT.

4 P.M. TO 12 P.M.									
1/4	DEG. AT	220	FT.	DEG. AT	FT.	DEG. AT	FT.		

DRILL STEM TESTS

12 P.M. TO 8 A.M.						
NO.	INTERVAL	FORMATION				
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)				
GAS TO SURFACE	MIN. @	MCF/D MAX.				
OIL TO SURFACE	MIN. @	BBL/D MAX.				
RECOVERY:						
PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

8 A.M. TO 4 P.M.						
NO.	INTERVAL	FORMATION				
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)				
GAS TO SURFACE	MIN. @	MCF/D MAX.				
OIL TO SURFACE	MIN. @	BBL/D MAX.				
RECOVERY:						
PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

4 P.M. TO 12 P.M.						
NO.	INTERVAL	FORMATION				
VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)				
GAS TO SURFACE	MIN. @	MCF/D MAX.				
OIL TO SURFACE	MIN. @	BBL/D MAX.				
RECOVERY:						
PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

FEB 10 1972 CONSERVATION ENGINEER

REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS

12 P.M. TO 8 A.M.		
FROM	TO	DESCRIPTION OF WORK
12:00	2:30	Drill 8 3/4 Pilot Hole
2:30		Pick up 1 D.C. Btm Hole
	3:15	Reamer & Bit Stabilizer
3:15	6:00	Drill 8 3/4 Pilot Hole.
6:00		Mix mud Cond & Survey Trip out Lay down Btm Hole Reamer Pick up Bit
	8:00	Sub & Run in

8 A.M. TO 4 P.M.		
FROM	TO	DESCRIPTION OF WORK
8:00	11:15	Drill 8 3/4 pilot Hole
11:15	11:30	Rig serv survey
11:30	3:00	Drill
3:00	3:15	Survey
3:15	4:00	Drill

4 P.M. TO 12 P.M.		
FROM	TO	DESCRIPTION OF WORK
4:00	7:00	Drill
7:00	7:30	Trip
7:30	8:30	Mix mud and loss circ
8:30	8:45	Run in w/ Bit #2.
8:45	11:15	Drill in Pilot Hole
11:15	11:30	Survey & Rig Ser.
11:30	1:00	Drill
		lost circ @ 205 To 214

DRILLER D McSpaggi NO. HELPERS 4

DRILLER E Zuk NO. HELPERS 5

DRILLER NO. HELPERS 4

52 - 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Dec 6 21/72

WELL NAME	H.B. ET AL Nielson A-39	LDG. FLG. TO KB	
CONTRACTOR	Cornwall Wealth	K. B. ELEV.	10.90
RIG NO.	12	TYPE RIG	Unit 34-D.
TOOL PUSHER	Al Norén	GRD. ELEV.	

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START	START	START 0
	PROGRESS	PROGRESS	PROGRESS
	END	END	END 44

BIT RECORD

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN

NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
1	38204	X16	8 3/4	0	44	44	5 1/2

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
5 1/2	0	130	2

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
			9.67	29.	6.05

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
GEL-LIME	8.5	65			

ADDITIVES 2500 # GEL - 50 # LIME.

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
GEL-LIME	8.5	100	—	—	—

ADDITIVES 50 # CAUSTIC

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
GEL. LIME					
	8.5	31			

ADDITIVES 50 lb. CAUSTIC.

CORING

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT.	DEG. AT FT.	DEG. AT FT.

DEG. AT FT.	DEG. AT FT.	DEG. AT FT.

DEG. AT FT.	DEG, AT FT.	DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:
PRESSURES IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS

FROM	TO	DESCRIPTION OF WORK
12 00	7 30	Drill Rat Hole
7 30	3 30	Mix Mud To Raise Vis
3 30	5 00	Drill Rat Hole
5 00		Remove Kelly Jt From
	6 00	Move Side Rat Hole
6 00	8 00	Thaw out Kelly Hose.

DRILLER A. McGregor NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
8 00	9 00	Thaw out stand pipe & Kelly
9 00	10 30	Ream Rat Hole
10 30	12 00	Weld mud line
12 00	1 30	Work on Pump
1 30	3 30	Ream Rat Hole
3 30	4 00	Push Rat Hole In

DRILLER E. Zatt NO. HELPERS 5

FROM	TO	DESCRIPTION OF WORK
4 00	6 30	Push in Rat Hole
6 30		Spud
	12 00	Drill 8 3/4 Pilot Hole.

DRILLER NO. HELPERS 7

CONSERVATION ENGINEER

52 - 8BAX4
REV. 2/71△

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Feb 23rd 1972.

WELL NAME	H.B. et Al Willow A 3 Q/VIT 34	LDG. FLG. TO KB	
CONTRACTOR	COMMONWEALTH	K. B. ELEV.	10.90
RIG NO.	12	GRD. ELEV.	
TYPE RIG		TOOL PUSHER	Al Nouin

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
							T Nuttall

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH			

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	PROGRESS TO	END FOOTAGE	END HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

ADDITIVES: USED 3.5 Sack Cement ON CONDUCTOR PIPE
3500 Gel 100# LIME

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION

VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)

GAS TO SURFACE MIN. @ MCF/D MAX.

OIL TO SURFACE MIN. @ BBL/D MAX.

RECOVERY:

PRESSURES: IHP FHP IFP FFP ISIP FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
1200	800	Skidded Rest Hole. Cement arrived @ 2. Ran
800	1000	Cement CONDUCTOR PIPE
1000	400	W.O.C & Mix MUD
		CONDUCTOR Set @ 14' IN GRAVEL.
400	600	W.O.C
600	1200	Drill ~~CONDUCTOR~~ Rat Hole

DRILLER D McGregor NO. HELPERS 4.

DRILLER C Nutt NO. HELPERS 5

DRILLER D McGregor NO. HELPERS 4

APPROVED
MAR 10 1972
CONSERVATION ENGINEERS
PER

52 - 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

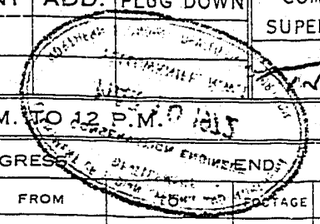
DATE Jul 19/72

WELL NAME	H.B. ET AL Willow A 39	LDG. FLG. TO KB	
CONTRACTOR	Canada Wealth	TYPE RIG	Unit 34
RIG NO.	12	TOOL PUSHER	
		K. B. ELEV.	
		GRD. ELEV.	

CASING RECORD

DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN

COMPANY SUPERVISOR



	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH			
BIT RECORD	START / PROGRESS / END	START / PROGRESS / END	START / PROGRESS / END
	NO. | SERIAL NO. | TYPE | SIZE | FROM | TO | FOOTAGE | HRS. RUN	NO. | SERIAL NO. | TYPE | SIZE | FROM | TO | FOOTAGE | HRS. RUN	NO. | SERIAL NO. | TYPE | SIZE | FROM | TO | FOOTAGE | HRS. RUN
DRILLING DATA	LINER SIZE | PUMP PRESSURE | TABLE SPEED | WEIGHT ON BIT	LINER SIZE | PUMP PRESSURE | TABLE SPEED | WEIGHT ON BIT	LINER SIZE | PUMP PRESSURE | TABLE SPEED | WEIGHT ON BIT
DRILLING STRING	SIZE | STANDS | SINGLES | DRILL COL. | KELLY IN | CORE BBL.	SIZE | STANDS | SINGLES | DRILL COL. | KELLY IN | CORE BBL.	SIZE | STANDS | SINGLES | DRILL COL. | KELLY IN | CORE BBL.
MUD RECORD	TYPE OF MUD | WEIGHT | VIS | WL | PH | FC	TYPE OF MUD | WEIGHT | VIS | WL | PH | FC	TYPE OF MUD | WEIGHT | VIS | WL | PH | FC
	ADDITIVES	ADDITIVES	ADDITIVES
CORING	NO. | FROM | TO | RECOVERED | FORMATION	NO. | FROM | TO | RECOVERED | FORMATION	NO. | FROM | TO | RECOVERED | FORMATION
SURVEY	DEG. AT FT. | DEG. AT FT. | DEG. AT FT.	DEG. AT FT. | DEG. AT FT. | DEG. AT FT.	DEG. AT FT. | DEG. AT FT. | DEG. AT FT.
DRILL STEM TESTS	NO. INTERVAL FORMATION	NO. INTERVAL FORMATION	NO. INTERVAL FORMATION
	VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)	VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)	VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
	GAS TO SURFACE MIN. @ MCF/D MAX.	GAS TO SURFACE MIN. @ MCF/D MAX.	GAS TO SURFACE MIN. @ MCF/D MAX.
	OIL TO SURFACE MIN. @ BBL/D MAX.	OIL TO SURFACE MIN. @ BBL/D MAX.	OIL TO SURFACE MIN. @ BBL/D MAX.
	RECOVERY:	RECOVERY:	RECOVERY:
	PRESS-URES | IHP | FHP | IFP | FFP | ISIP | FSIP	PRESS-URES | IHP | FHP | IFP | FFP | ISIP | FSIP	PRESS-URES | IHP | FHP | IFP | FFP | ISIP | FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK
12:00	8:00	Drill Conductor Hole

DRILLER J. McGregor NO. HELPERS 4

FROM	TO	DESCRIPTION OF WORK
8:00	10:00	Drill Rat Hole
10:00	4:00	Rig up to drill Rat Hole and drill same.

DRILLER [illegible] NO. HELPERS 5

FROM	TO	DESCRIPTION OF WORK
4:00	12:00	Drill Rat Hole

DRILLER J. McGregor NO. HELPERS 4

52 - 8RAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Feb 18 / 72

WELL NAME H.B. ET AL Willow A39
CONTRACTOR Commonwealth Drilling
RIG NO. 12
TYPE RIG Unit #34
TOOL PUSHER
LDG. FLG. TO KB
K. B. ELEV.
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T. Nelson

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH	START / PROGRESS / END	START / PROGRESS / END	START / PROGRESS / END

BIT RECORD

	NO.	SERIAL NO.	TYPE	SIZE	FROM	TO	FOOTAGE	HRS. RUN
12 P.M. TO 8 A.M.								
8 A.M. TO 4 P.M.								
4 P.M. TO 12 P.M.								

DRILLING DATA

	LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT
12 P.M. TO 8 A.M.				
8 A.M. TO 4 P.M.				
4 P.M. TO 12 P.M.				

DRILLING STRING

	SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.
12 P.M. TO 8 A.M.						
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.						

MUD RECORD

	TYPE OF MUD	WEIGHT	VIS	WL	PH	FC
12 P.M. TO 8 A.M.						
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.						

ADDITIVES (12 P.M. TO 8 A.M.)

ADDITIVES (8 A.M. TO 4 P.M.)

ADDITIVES (4 P.M. TO 12 P.M.)

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

	DEG. AT	FT.	DEG. AT	FT.	DEG. AT	FT.
12 P.M. TO 8 A.M.						
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.						

DRILL STEM TESTS

	NO.	INTERVAL	FORMATION
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

	VALVE OPEN (MINS.)	INITIAL SHUT-IN (MINS.)	FINAL SHUT-IN (MINS.)
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

	GAS TO SURFACE	MIN. @	MCF/D MAX.
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

	OIL TO SURFACE	MIN. @	BBL/D MAX.
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.			
4 P.M. TO 12 P.M.			

	RECOVERY:
12 P.M. TO 8 A.M.	
8 A.M. TO 4 P.M.	
4 P.M. TO 12 P.M.	

PRESSURES	IHP	FHP	IFP	FFP	ISIP	FSIP
12 P.M. TO 8 A.M.						
8 A.M. TO 4 P.M.						
4 P.M. TO 12 P.M.						

REMARKS INCLUDING:
CEMENTING
LOGGING
PERFORATING
ACIDIZING
FRACTURING
PLUGS

	FROM	TO	DESCRIPTION OF WORK
12 P.M. TO 8 A.M.			
8 A.M. TO 4 P.M.	8:00	4:00	Drill Conductor Hole
4 P.M. TO 12 P.M.	4:00	12:00	Drill Conductor Hole

	DRILLER	NO. HELPERS
12 P.M. TO 8 A.M.		
8 A.M. TO 4 P.M.	E Zinn	5
4 P.M. TO 12 P.M.	D McGregor	4

52 - 8BAX4
REV. 2/71

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Feb 17 / 72

WELL NAME HB ETAL Willow A 39	LDG. FLG. TO KB	CASING RECORD	DEPTH / SIZE / WEIGHT / GRADE / CEMENT / ADD. / PLUG DOWN / COMPANY SUPERVISOR
CONTRACTOR Commonwealth Drilling TYPE RIG Unit 34	K. B. ELEV.		
RIG NO. 12 TOOL PUSHER	GRD. ELEV.		

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH			
BIT RECORD	START / PROGRESS / END NO. / SERIAL NO. / TYPE / SIZE / FROM / TO / FOOTAGE / HRS. RUN	START / PROGRESS / END NO. / SERIAL NO. / TYPE / SIZE / FROM / TO / FOOTAGE / HRS. RUN	START / PROGRESS / END NO. / SERIAL NO. / TYPE / SIZE / FROM / TO / FOOTAGE / HRS. RUN
DRILLING DATA	LINER SIZE / PUMP PRESSURE / TABLE SPEED / WEIGHT ON BIT	LINER SIZE / PUMP PRESSURE / TABLE SPEED / WEIGHT ON BIT	LINER SIZE / PUMP PRESSURE / TABLE SPEED / WEIGHT ON BIT
DRILLING STRING	SIZE / STANDS / SINGLES / DRILL COL. / KELLY IN / CORE BBL.	SIZE / STANDS / SINGLES / DRILL COL. / KELLY IN / CORE BBL.	SIZE / STANDS / SINGLES / DRILL COL. / KELLY IN / CORE BBL.
MUD RECORD	TYPE OF MUD / WEIGHT / VIS / WL / PH / FC ADDITIVES	TYPE OF MUD / WEIGHT / VIS / WL / PH / FC ADDITIVES	TYPE OF MUD / WEIGHT / VIS / WL / PH / FC ADDITIVES
CORING	NO. / FROM / TO / RECOVERED / FORMATION	NO. / FROM / TO / RECOVERED / FORMATION	NO. / FROM / TO / RECOVERED / FORMATION
SURVEY	DEG. AT FT. / DEG. AT FT. / DEG. AT FT.	DEG. AT FT. / DEG. AT FT. / DEG. AT FT.	DEG. AT FT. / DEG. AT FT. / DEG. AT FT.
DRILL STEM TESTS	NO. / INTERVAL / FORMATION VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.) GAS TO SURFACE / MIN. @ / MCF/D MAX. OIL TO SURFACE / MIN. @ / BBL/D MAX. RECOVERY: PRESSURES: IHP / FHP / IFP / FFP / ISIP / FSIP	NO. / INTERVAL / FORMATION VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.) GAS TO SURFACE / MIN. @ / MCF/D MAX. OIL TO SURFACE / MIN. @ / BBL/D MAX. RECOVERY: PRESSURES: IHP / FHP / IFP / FFP / ISIP / FSIP	NO. / INTERVAL / FORMATION VALVE OPEN (MINS.) / INITIAL SHUT-IN (MINS.) / FINAL SHUT-IN (MINS.) GAS TO SURFACE / MIN. @ / MCF/D MAX. OIL TO SURFACE / MIN. @ / BBL/D MAX. RECOVERY: PRESSURES: IHP / FHP / IFP / FFP / ISIP / FSIP
REMARKS INCLUDING: CEMENTING LOGGING PERFORATING ACIDIZING FRACTURING PLUGS	FROM / TO / DESCRIPTION OF WORK	FROM 8 00 / TO 4 00 / DESCRIPTION OF WORK: Rigging up	FROM 4 00 / TO 5 00 / DESCRIPTION OF WORK: Rigging up.
	DRILLER / NO. HELPERS	DRILLER / NO. HELPERS	DRILLER D. McGregor / NO. HELPERS 4

DEPARTMENT OF MINES AND PETROLEUM RESOURCES
OPERATION DISCONTINUED
FEB 17 1972
APPROVED

52 - 88AX4
REV. 2/71Δ

Hudson's Bay Oil and Gas Company Limited

DAILY DRILLERS REPORT

DATE Feb. 16 1972

WELL NAME H.B. et Al Wilson A-39
CONTRACTOR Commonwealth Drilling | TYPE RIG Unit # 34
RIG NO. 12 | TOOL PUSHER Al Noren

LDG. FLG. TO KB
K. B. ELEV. 1090
GRD. ELEV.

CASING RECORD	DEPTH	SIZE	WEIGHT	GRADE	CEMENT	ADD.	PLUG DOWN	COMPANY SUPERVISOR
								T. Hubbard

	12 P.M. TO 8 A.M.	8 A.M. TO 4 P.M.	4 P.M. TO 12 P.M.
DEPTH			

BIT RECORD

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

DRILLING DATA

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

DRILLING STRING

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

MUD RECORD

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

CORING

NO.	FROM	TO	RECOVERED	FORMATION

SURVEY

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

DRILL STEM TESTS

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

REMARKS INCLUDING: CEMENTING, LOGGING, PERFORATING, ACIDIZING, FRACTURING, PLUGS

FROM	TO	DESCRIPTION OF WORK

DRILLER | NO. HELPERS

---

8 A.M. TO 4 P.M.

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

NO.	FROM	TO	RECOVERED	FORMATION

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
800	400	Rigging up.

DRILLER E. Jutz | NO. HELPERS 4

---

4 P.M. TO 12 P.M.

START NO.	SERIAL NO.	TYPE	SIZE	PROGRESS FROM	TO	END FOOTAGE	HRS. RUN

LINER SIZE	PUMP PRESSURE	TABLE SPEED	WEIGHT ON BIT

SIZE	STANDS	SINGLES	DRILL COL.	KELLY IN	CORE BBL.

TYPE OF MUD	WEIGHT	VIS	WL	PH	FC

ADDITIVES

NO.	FROM	TO	RECOVERED	FORMATION

DEG. AT FT. | DEG. AT FT. | DEG. AT FT.

NO. INTERVAL FORMATION
VALVE OPEN (MINS.) INITIAL SHUT-IN (MINS.) FINAL SHUT-IN (MINS.)
GAS TO SURFACE MIN. @ MCF/D MAX.
OIL TO SURFACE MIN. @ BBL/D MAX.
RECOVERY:

PRESS-URES	IHP	FHP	IFP	FFP	ISIP	FSIP

FROM	TO	DESCRIPTION OF WORK
400	700	Rigging up

DRILLER W. McGregor | NO. HELPERS 4

Drilling Authority No. 575

Date Issued 03-02-72

WELL NAME H.B. et al Willow A-39

FIELD ..... Area: .....

LOCATION: Unit A Section 39 Grid 62-50-122-45

Latitude 62°48'05" Longitude 122°50'53"

U.W.L.R. 62.80139° - 122.84806°

U.W.I. 300A396250122450

Rig Release Date: 02-04-72 (2710')

Status Suspended

Information Release Date 02-04-74

CHANGE OF NAME:

DATE RECEIVED	INDEX
26-01-72	Application for a Drilling Authority.
14-05-72	Well Completion Data.
7-09-72	Well History Report.
	Application to Amend a Drilling Authority.
24-02-72	Application to change a Well Name.
10-04-72	Application to ~~Abandon a Well~~ or Suspend Drilling.
	Application to Alter Condition of a Well.
	Well History Supplement.
	Well Completion Data.
	Work-over Report No. .....
	Application to Commingle Production before Measurement.
	Application to Commingle Production before Measurement.
	Data for Back Pressure Test on Natural Gas Wells – Monograph 7 Method.
	Data for Back Pressure Test on Natural Gas Wells – Vitter's Method.
	M.P.R. – Oil – Calculations.
	New Oil Well Report.
	New Gas Well Report.
	Well Inspection Report.
01-03-72	Rig Inspection Report.
	Battery Inspection Report.
	Equipment Report.
	Well Card.
	New Service Well Report.
	Monthly Water Flood Operations Report
	Monthly Water Receipts and Disposal of Fluids Report
	Logs. Large scale..... Small scale.....

DEPARTMENT OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
MINISTÈRE DES AFFAIRES INDIENNES ET DU NORD CANADIEN

OIL & [redacted]AL DIVISION
DIVISION DU PÉTROLE ET DES MINÉRAUX

WELL COMPLETION DATA
RENSEIGNEMENTS SUR LES FORAGES

Drilling Authority No. 575
N° de l'autorisation de forage

Date Issued Feb. 3/72
Date de délivrance

To be submitted in duplicate within thirty days after the completion, rework, abandonment, recompletion or suspension of every well.
À présenter en double dans les trente jours suivant l'achèvement, le remaniement, l'abandon et le reconditionnement de chaque puits, ou après suspension.

Well Name & No – *Nom et n° du puits*	Permit No. – *N° de permis*	Lease No. – *N° de concession*
HB et al Willow A-39	P & NG #4421	

(Permittee, License, Lessee) – *(Détenteur de permis ou de licence, du concessionnaire)*	Exploratory Licence No. – *N° de licence de sondage*
Standard Oil Company of British Columbia.	Lic. 1914 & Canada Cities Service Ltd.
(Operator) – *(Exécutant)*	Exploratory Licence No. – *N° de licence de sondage*
Hudson's Bay Oil & Gas Company Limited	Lic. 1943 1908

LOCATION — *EMPLACEMENT*

Unit – *Unité*	Section	Grid – *Étendue quadrillée*	Latitude	Longitude
A	39	62-50-122-45	62°48'05"	122°50'53"

Unique Well Identifier – *Code d'ordinateur*	Universal Well Location Reference – *Références universelles d'emplacement du puits*
300A396250 122450	Lat. 62.80139N Long. 122.84806W

	Date	Depth – *Profoneur*
Spudded *Début des travaux*	Feb.21/72	
Suspended *Suspension des travaux*	Apr. 1/72	
Resumed Operations *Reprise des travaux*		
Finished Drilling *Forage terminé*	Mar.30/72	2710 Log. 2710 Dr.
Deepened *Approfondissement*		
Complete (Gas/Oil) *Achèvement (Gaz/Pétroie)*		
Abandoned *Abandon*		
Rig Released *Fin des travaux*	Apr. 2/72	2710

Pool(s) *Gisement(s)*

Interval(s) Open to Production *Intervalle(s) de production* None

Elevation: Gr. *Altitude du sol* 2050.0 K.B. *du carré d'entraînement* 2061.9

Rig No. *N° de la tour de forage* 12

Drilling Contractor *Entrepreneur en forage* Commonwealth Drilling (Western) Ltd.

Contractor's Business Licence No. *N° du permis de l'entrepreneur* 0997

CASING RECORD — *TUBAGE*

Casing Size (Inches) *Diamètre (en pouces)*	Grade *Qualité*	Weight *Poids*	Amount *Longeur*	Set at – *Fixation à*	Sacks of Cement and Additives *Sacs de ciment et d'additifs*
1. 13 3/8	H-40	48 lb/ft.	576.83 ft.	568 ft.KB	600 sacks Construction cement plus 2% $CaCl_2$ plus 2 sacks fibre seal in first 200 sacks. Ran 20 sacks cement from surface.
2.					
3.					
4.					
5.					
6.					

Geological Tops *Sommet des formations*	Elevation – *Profondeur* Depths *Sous le niveau du sol*	Sub-Sea *Sous le niveau de la mer*
L.Chin.Carb	1350	-712
Delorme	1520	-542
Mt. Kindle	1930	-132

Core Record – *Carottes*

From – *de*	To – *à*	Rec. *Récupérées*	From – *de*	To – *à*	Rec. *Recup.*
None					

Log Record – *Diagrammes*

Run *Série*	Type of Log *Genre de diagramme*	From – *De*	To – *À*
one	Dual Induction-Laterolog	2696	560
one	Borehole Compensated Sonic	2708	560
one	Formation Density	2708	561
one	Sidewall Neutron Porosity	2708	561
one	Continuous Dipmeter	2707	561
one	Continuous Dipmeter (computed)	2707	561

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
AUG 14 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BRANCH

CEMENTING RECORD (Plug, Squeeze, etc.) *CIMENTATION (Bouchon, sous pression, etc.)*				PERFORATING RECORD (Bullet, Jet) *PERFORATION (à balles, à jet)*				SERVICING RECORD (Acidizing, Fracing, etc.) *ENTRETIEN (acidification, fracturation, etc.)*			
Date	From — *de*	To — *à*	Remarks — *Remarques*	Date	From — *de*	To — *à*	Remarks — *Remarques*	Date	From — *de*	To — *à*	Remarks — *Remarques*
Well suspended with the following plugs:				None				None			
Apr. 1/72	2710	2610	50 sacks cement								
Apr. 1/72	608	508	70 sacks cement								

DRILL STEM TESTS — *ESSAIS AUX TIGES*

No. — *N°*	Date	Formation	From — *de*	To — *à*	V.O. Mins. *Vanne ouverte (minutes)*	I.S.I. Mins. *Première obturation (minutes)*	F.S.I. Mins. *Obturation définitive (minutes)*	I.S.I.B.H.P. *Pression de fond à la 1re obturation*	F.S.I.B.H.P. *Pression de fond à l'obturation définitive*	I.F.B.H.P. *Pression de fond au jaillissement*	F.F.B.H.P. *Pression de fond à l'écoulement définitif*	L.H.P. *Pression hydrostatique de début*	F.H.P. *Pression hydrostatique définitif*	Remarks — *Remarques*
	None													

ANALYSIS — *ANALYSE*

Lab. No. *N° de laboratoire*	Sample *Échantillon*	From — *de*	To — *à*	Source	Remarks — *Remarques*
None					

PRESENT STATUS OF WELL
ETAT ACTUEL DU PUITS

Oil *Pétrole*			(Interval) *(Intervalle)*
Gas *Gaz*			(Interval) *(Intervalle)*
Dry *Sec*			
Susp. *Travaux sus.*			

Company *Société* Hudson's Bay Oil & Gas Co. Ltd.

Signed by *Signé par* E.A. Pavan, P. Eng.

Title *Titre* District Petroleum Engineer

Date July 27, 1972

Forms to be prepared in duplicate and forwarded to the District Conservation Engineer.

Présenter les formules remplies à l'ingénieur en conservation du district.

CANADA

Drilling Authority No. 575

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

Application to ~~Abandon a Well or~~ Suspend Drilling

TP

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval ~~to abandon~~, to suspend drilling:—

Name and number of well HB et al Willow A-39

Location: Unit A Section 39 Grid 62-50-122-45

Latitude 62° 48'05" Longitude 122° 50'53"

From Established Reference Marker

Universal Well Location Reference Lat. 62.80139 N Long. 122.84806 W

Permit No. P. & NG #4421 Lease No.

Standard Oil Company of British Columbia, Lic. 1914 Canada Cities Service Ltd. Lic. 1943
(Permittee, Licencee, Lessee)

Date of commencement of proposed program Winter 1973

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at –

Gas at –

Water at –

Total Depth 2710 feet KB Date of last operations April 2, 1972

Present condition of well Well suspended with cement plugs in the hole:
Plug #1 2710 to 2610 feet KB.
Plug #2 608 to 508 feet KB.

CASING RECORD

	Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Pulled
1.	13 3/8	48	558	568	600 sacks + 2% $CaCl_2$	–
2.						
3.						
4.						
5.						

PROPOSED ABANDONMENT PROGRAM

Plug No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
1	2710-2610	Ronning Group	50	
2	608- 508	Surface Casing	70	BOP's installed at surface, closed and locked.

The following logs have been run DIL, SNPGR, BHCSGR, FDC, Dipmeter

Other operations proposed Complete Exploration drilling program on this well in 1973.

Operations to be carried out by Hudson's Bay Oil & Gas Co. Ltd. Contractor Licence No. 0997

Address 11630 Kingsway Ave., Edmonton Address Commonwealth Drilling

Responsible Agent in field N. Dease

Dated at Edmonton, this 4 Day of April 19 72

Signed by [signature] Company Hudson's Bay Oil & Gas Co. Ltd.

Title District Drilling Foreman Operator's Exploratory Licence No. 1908

Note:—The District Conservation Engineer's office must be notified before work is commenced.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
APR - 6 1972
EDMONTON, ALTA.
NORTHERN ECONOMIC DEVELOPMENT BRANCH

(For OIL AND MINERAL DIVISION use only)

APPROVAL

This application has been examined and proposed programme approved, subject to the following conditions:

Dated April 10, 19 72

[signature]
District Conservation Engineer

IAND 52-90-5 (7-71)

Forms to be submitted in triplicate to District Conservation Engineer, Department of Indian Affairs and Northern Development.

Voir au verso

Drilling Authority No. ..575.....
Project No. .....

CANADA

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

OIL AND MINERAL DIVISION

DEPARTMENT OF INDIAN AFFAIRS & NORTHERN DEVELOPMENT
OIL & MINERAL DIVISION
JAN 26 1972
CALGARY 21, ALBERTA
OIL CONSERVATION ENGINEER
Northwest Territories & Yukon Territory

Application for a Drilling Authority

This notice of intention to begin drilling operations, in triplicate, and where required a plan of survey approved by the Surveyor General showing the target area or the site of the well must be submitted and approved before commencing operations.

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to drill:–

Name and number of well ..HB et al Willow A-39.....

Location: Unit .....C..... Section .....39..... Grid 62-50 - 122-45....
Latitude 62°48'05" Longitude 122°50'53"
Unique Well Identifier. 300C396250122450
Universal Well Location Reference. Lat. 62.80139 N Long. 122.84806 W

Elevation: Ground .....To Follow K.B. .....1913..... feet above sea-level.
Well is expected to produce from .....Siluro-Ordovician..... formation at a depth
of about ....1,600..... feet. Expected total final depth .....3,300 feet.....
Area assigned to well ..Wildcat.....
(for District Conservation Engineer's use only)

Permit No. P&NG #4421 .... Lease No. ..... Acreage ..58,650.....
Permittee, licensee, or lessee Standard Oil Company of British Columbia Lic.1914 Canada Cities Service Ltd. Lic. 1943
Explanatory Licence No. .....
Surface owned by Crown or .....
(If alienated submit name and address of owner and occupant.)

Petroleum and natural gas rights owned by .....Crown.....
We propose to use the following strings of casing, either cementing or landing them as indicated below:–

Ceasing Size O.D. (Inches)	Weight (Lb./Ft.)	Grade	New or Used	Estimated Depth	Sacks of Cement
1. 10 3/4	32.75	K55	New	600	Sufficient
2.					cement
3.					volume to
4.					return to
5.					surface.

Expected water, gas, and oil horizons and type of control equipment. The anticipated production horizon is the Siluro-Ordovician formation. Control equipment will consist of proper drilling fluid and adequate blowout prevention equipment as per Section 7 of the Canada Oil & Gas Drilling & Production Regulations.
Well will be drilled with Rotary Rig No. ....12.... by Commonwealth Drilling Ltd....
(Drilling Contractor or company)

.....

Responsible agent of applicant:–
At well... N. Dease
Address ..11630 Kingsway Ave....
Contractor's Business Licence No. ..0997.....
At registered office .. R. L. Levesque
Address 11630 Kingsway Ave. Edmonton

It is understood that if changes become necessary, notice of the change of plan will be submitted.
Dated at ..Edmonton..... this ..24th.... day of ..January.....19 72
Signed by .....
Company .Hudson's Bay Oil & Gas Co. Ltd.
Title .District Drilling Foreman Operator's Licence No. .....1908.....

(For Oil and Mineral Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:

.....
...Please see attached sheet for conditions.....
.....
Dated. Feb. 3 19 72 .....
District Conservation Engineer

Forms to be submitted to District Conservation Engineer, Department of Indian Affairs and Northern Development.

IAND 52-90-1 (7-71)

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
JAN 31 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMI DEVELO

Voir au verso

CONDITIONS OF APPROVAL FOR DRILLING AUTHORITY NO. 575
FOR HB et al Willow A-39

1. Copies of this Drilling Authority shall be exhibited at the Drilling Rig in both the Doghouse and the Drilling Foreman's Office between spud and rig release dates.

2. The Company will submit to this office on Tuesday of each week, a Progress Report on the well. The Oil Conservation Engineer may request more frequent reports.

3. All waste materials shall be disposed of in a manner that will prevent pollution to adjacent areas.

4. We draw your attention to Sections 95 and 96 of the Canada Oil and Gas Land Regulations.

5. Any additional strings of casing must be approved by the District Conservation Engineer prior to running.

6. All shows (small or large) of oil and gas are to be reported immediately.

G. E. Blue,
District Conservation Engineer,
Box 1500,
Yellowknife, N.W.T.

Bus. Phone 873-4421
Res. Phone 873-3028

DRILLING AUTHORITY No. 575

WELL BULLETIN - - CANADA LANDS

OIL AND MINERAL DIVISION

DATE: Feb. 2, 1972.

Date Drilling Authority Issued: January 24, 1972.

Permit No.: 4421

Company: Hudson's Bay Oil and Gas Company Limited

Well Name: HB et al Willow A-39

Location: Lat. 62°48'05" N Long. 122°50'53" W

Co-ordinates: Unit: C Section: 39 Grid: 62-50-122-45

Universal Well Location Reference: Lat. 62.80139 Long. 122.84806 W

Unique Well Identifier: 300C396250122450

Field: Wildcat

Ground Elevation: To follow

Projected Depth: 3,300'

Contractor: Commonwealth Drilling Ltd. Rig No. 12

MAIL TO:

Oil & Gas Journal
Petroleum Information Exchange
Oilweek
Daily Oil Bulletin
Well Information Services
Northwestern District Oil Scouts
~~Axx Cxx Anderson~~
G. B. Armstrong
D. Bohun
M. Thomas

G.E. Blue,
Oil Conservation Engineer,
Department of Indian Affaris and
Northern Development,
Oil and Mineral Division,
P.O. Box 1500,
YELLOWKNIFE, N.W.T.

HUDSON'S BAY OIL AND GAS COMPANY LIMITED
WELL PLAN
AFE #10028

WELL DATA:

Well Name: - HB et al Willow C-39

Location: - C-39; 62°50' 122° 45'

Objective: - Siluro-Ordovician Zone
Est. TD 3300 ft.

Classification: - "Exploratory"
TO BE DRILLED AS A TIGHT HOLE

DRILLING PROCEDURE:

Drill a 15 inch surface hole to approximately 600 feet or at least 75 feet into a competent formation.

Drill a 8 3/4 inch hole from SC to TD.

DRILLING TIME:

- at discretion of wellsite geologist.

DEVIATION SURVEY:

Well Depth Feet	Max. Dist. Between Surveys, Feet	Max. Dev. From Vert., Degrees	Max. Chge. of Angle Between any two Surveys, Degrees
0 - SC	100	1	1/2
SC- TD	500	3	1 1/2

MUD PROGRAM:

Surface Hole - Drill with a limed bentonite spud mud. Add sawdust at any noteworthy decrease in volume of the mud system. If gravel is encountered, increase the mud viscosity to prevent caving and to maintain a clean hole. Drill through the casing shoe with water and discard all cement cut returns and surface mud.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
JAN 31 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC

SC to TD - After cleaning mud tanks begin mudding to a gel-Benex system. Mud properties, adequate for obtaining good quality samples, should be:

Viscosity:	- 40-60 sec/qt increasing to 90 sec/qt prior to logging.
Weight:	- 9.3 lb/gal maximum
pH:	- 9.0 to 10.0
Water Loss:	- 10 cc max prior to Ronning Group at 1600 ft.

SURFACE CASING:

Size	Weight	Grade	Thread	Length
10 3/4"	32.75 lb/ft	H-40	ST&C	600 ft. or as required

Cementing Details: If setting depth is 600 feet, cement with 540 sacks of Type "A" construction cement plus 2% Calcium Chloride. This volume is based on gauge hole and includes a 50% excess. Alteration of the cement volume may be required if lost circulation is encountered or if setting depth is greater than 600 feet.

Use three centralizers: one on the shoe joint and then at 100 foot intervals.

Use three scratchers: two on the shoe joint and the remaining one on the joint immediately above.

WOC: 24 hours then pressure test BOP's to 1000 psi prior to drilling out.

GEOLOGICAL PROGRAM:
See Attached. Surveyed Gr. Elev. -

SAMPLES:

As indicated on the Geological Program and as required by the Dept. of Indian Affairs and Northern Development.

CORING AND TESTING:

See Attached.

LOGGING PROGRAM:

See Attached.

PRODUCTION CASING AND COMPLETION: To be determined at TD

SERVICE COMPANIES TO BE USED:

Mud:	- International Drilling Fluids
Cementing:	- B.J. Services
Logging:	- Schlumberger
Coring:	- B.J. Services
Testing:	- B.J. Services

DISTRICT PETROLEUM ENGINEER

DISTRICT DRILLING FOREMAN

DISTRICT GEOLOGIST

DISTRICT MANAGER

DISTRIBUTION:

	JMcK	RLL	WCO	BOARD	PARTNERS	TOTAL
Well Plans	3	9	3	-	9	24
Logs-Field	1	2	1	1	5	10
-Final	1	1	1	2	5	10
Analysis-Preliminary	1	1	1	-	5	8
-Final	1	1	1	2	5	10
DST Reports	1	1	1	2	5	10

J.B. LONG/jk
January 24, 1972

HB et al Willow C-39

GEOLOGICAL PROGNOSIS

WELL NAME: HB et al Willow C-39 Grd. Elev. (est.) 1900'

LOCATION: C-39, 62°50', 122°45' K.B. Elev.

GEOLOGICAL ESTIMATES:

	Elev.	Int.	Depth
Ronning Group		1650	1600
Cambrian		50	3250
T.D. in Cambrian			3300

SAMPLES:

1. Catch 10 foot samples in vials from surface casing to T.D. for HBOG, Chevron and Cities Service.
2. Catch samples as required by Dept. of Indian Affairs & Northern Development.

MUD:

Mud adequate for obtaining good cuttings should be in the hole from surface casing to T.D.

DRILLING TIME:

At discretion of wellsite geologist.

LOGS:

Reproduce 12 copies of field logs and 6 copies of Geol. Desc. form only at wellsite.

1. Dual Induction Laterolog, T.D. to surface casing with 5" detail over same interval.
2. Gamma Ray-Borehole Compensated Sonic Log, T.D. to surface casing with 5" detail over same interval.
3. Compensated Formation Density, T.D. to surface casing with 5" detail over same interval.
4. Continuous Dipmeter, Four Arm Digital; intervals to be determined later.

CORING AND TESTING:

1. In any porous zone, test first 20' of porosity and, if productive, core and test in 60' intervals until zone is pentrated or water is encountered.

FLUID SAMPLES:

Representative fluid samples of all DST's from top, middle and bottom of the fluid column are required for analysis. Provide a second set for the logging company for Rw determinations and have these values recorded on the field logs.

DAILY REPORTS:

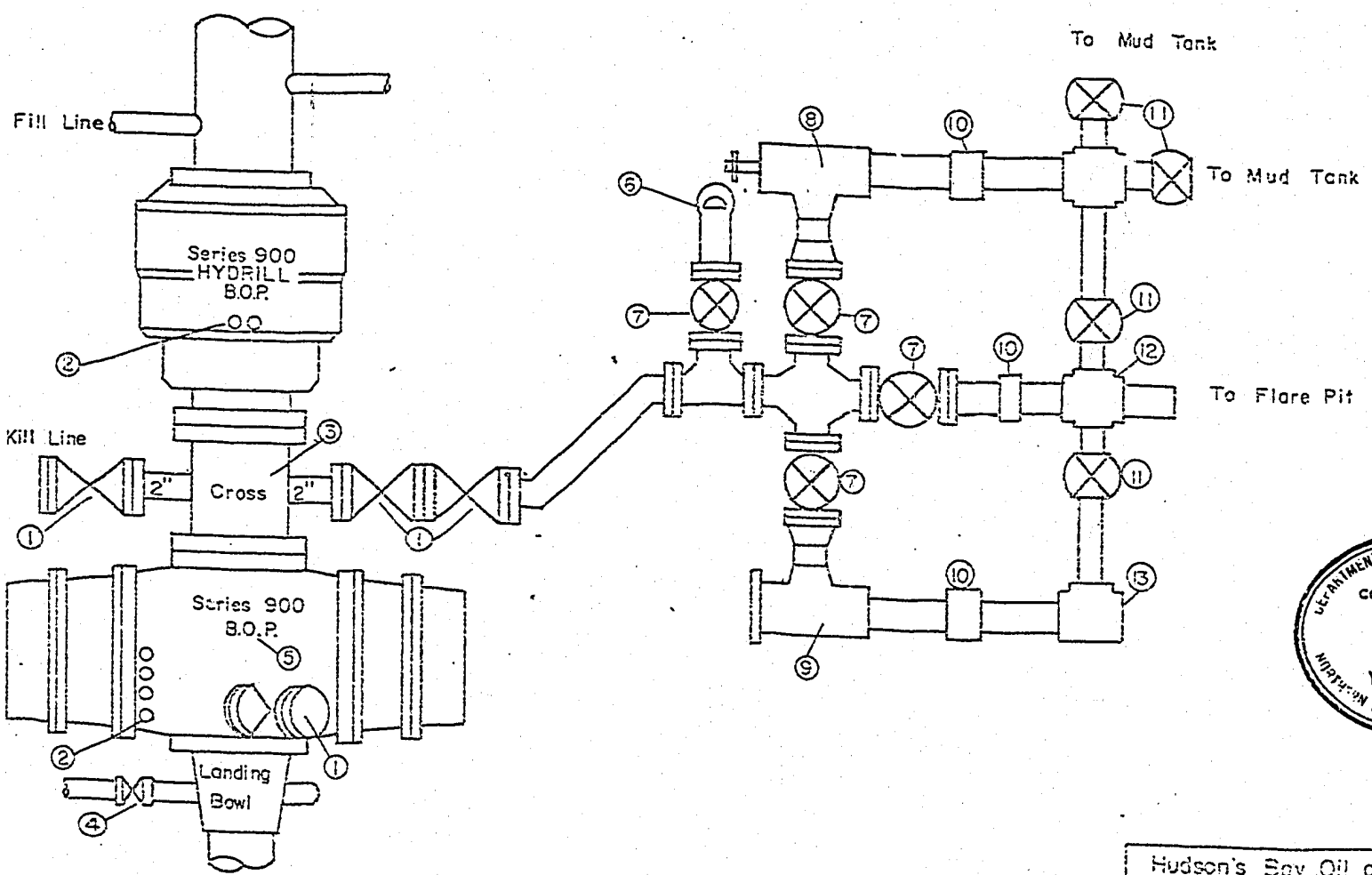
George Dann 267-2430 (Bus.) 249-8420 (Res.) or Bill Oke 267-2432 (Bus.) 249-2917 (Res.)

District Geologist

Manager, Geological Section

DISTRIBUTION:

Exploration	12
District	9
Production HQ	3



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
JAN 31 1972
YELLOWKNIFE, N.W.T.
NORTHERN ENERGY DEVELOPMENT BRANCH

Hudson's Bay Oil and Gas Company Limited

Production Dept. Edmonton District

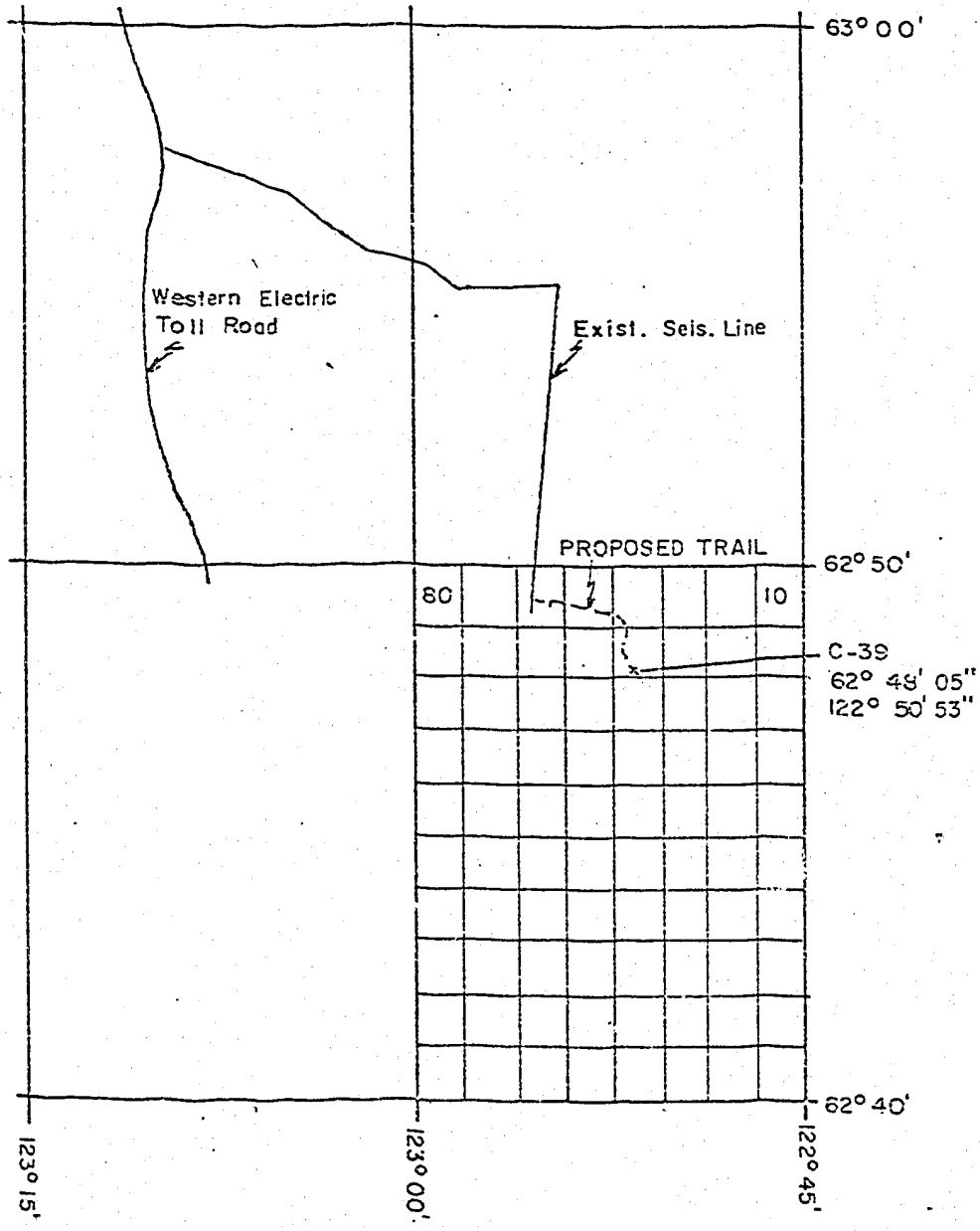
BOP SYSTEM & BLOWDOWN MANIFOLD

HB et al WILLOW C-39

COMMONWEALTH DRILLING No.12

Scale: NTS	Drawn: N.R.	Drawing No:
Date: JAN. 27/72	Ch'kd:	

1. 3" valve Series 900 Flanged
2. Control lines are to be Steel construction with chicksen swing connections
3. Space saver spool
4. 2" 300 psi screwed steel valve
5. Double Gate
6. 3000 psi pressure gauge
7. 2" Flanged valves
8. Adjustable Choke
9. Positive Choke
10. Union
11. 2" screwed valves
12. 3" x 2" Reducing Cross
13. 2" Tee



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CONSERVATION ENGINEER
JAN 31 1972
YELLOWKNIFE, N.W.T.
NORTHERN ECONOMIC DEVELOPMENT BR

Hudson's Bay Oil and Gas Company Limited

Production-Engineer

District Analyst

Hudson's Bay Oil and Gas Company Limited

Production Dept. Edmonton District

HB et al WILLOW C-39
PROPOSED WELLSITE & ACCESS TRAIL
REFERENCE 62° 50'N 122° 45' W

Scale: 1" = 4 mi	Drawn: M.R.	Drawing No.
Date: JAN. 20/72	Ch'kd	

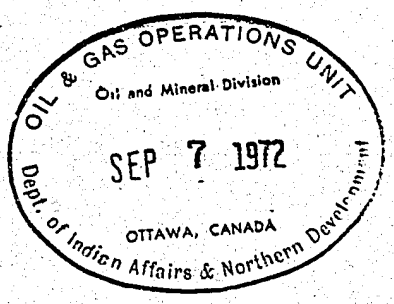
HB ET AL WILLOW A-39

WELL HISTORY REPORT

38-11-4-27

HUDSON'S BAY OIL AND GAS COMPANY LIMITED
EDMONTON DISTRICT

WELL HISTORY REPORT
HB ET AL WILLOW A-39



Signed: E A Power
District Petroleum Engineer

Date: July 27, 1972

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ENGINEERING SUMMARY	Page 18
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HB ET AL WILLOW A-39
WELL HISTORY REPORT

Summary of Well Data

Well Name & Number:	- HB et al Willow A-39
Permittee, Licencee or Lessee:	- Standard Oil Company of British Columbia, and Canada Cities Service Ltd.
Name of Operator:	- Hudson's Bay Oil and Gas Co. Ltd. 11630 Kingsway Avenue Edmonton, Alberta
Location:	- A-39-62-50-122-45 Latitude 62°48'05" Longitude 122°50'53" Universal Well Location References: Lat. 62.80139N Long. 122.84806W Unique Well Identifier: 300A396250 122450
Co-ordinates:	- Latitude 62°48'05" Longitude 122°50'53"
Permit Number:	- P&NG #4421
Drilling Contractor:	- Commonwealth Drilling(Western) Ltd. Rig No. 12
Drilling Authority:	- No. 575, issued Feb. 3, 1972
Classification:	- Exploratory
Elevations:	- Ground: 2050.0 feet KB: 2061.9 feet
Spudded:	- February 21, 1972
Completed Drilling:	- March 30, 1972
Total Depth: Plug Back Depth:	- 2710 ft. KB 508 ft. KB
Well Status:	- Suspended
Rig Released:	- April 2, 1972
Hole Size:	- 17½ inch surface to 568 ft. KB 8 3/4 inch from 568 ft. KB to 2710 ft. KB.

Casing:
Surface: - 13 3/8" OD, 48#/ft. H-40
set at 568 ft. KB

Geological Summary

Formation Tops:

Marker	Log Depth ft.KB	Log Depth Elev.	Sample Depth ft.KB	Sample Depth Elev.
L. Chinchaga Carbonates	1345	717	1350	712
Delorme	1520	542	1520	542
Mt. Kindle	1928	134	1930	132
Total Depth	2710	-648		

Cored Intervals: - No cores were cut.

Core Description: - N/A

Sample Description: - See next page.

Sample Description

HB et al Willow

A-39

Note: Samples lagged one minute for every 100 feet.

40-60	Limestone: dark grey, cryptocrystalline, very slightly argillaceous.
60-70	Limestone: as above but brecciated with white fine crystalline calcite veinlets and crystals.
70-100	Limestone: as above, oolitic in part; white calcite veinlets and crystals fine - medium crystalline.
100-110	Limestone: as above, slightly pelletoidal and traces of very fine crystalline pyrite.
110-130	Limestone: dark grey, crypto-microcrystalline brecciated, slightly oolitic, and pelletoidal, trace argillaceous, minor fine - medium crystalline white calcite veinlets and crystals.
130-210	Limestone: light grey, - micro - very fine crystalline, brecciated, oolitic and pelletoidal in part, very slightly argillaceous. Limestone: dark grey, crypto - very fine crystalline, oolitic in part.
210-220	Limestone: as above but light grey variety is fine - medium crystalline.

TIGHT HOLE

TIGHT HOLE

220–230	Limestone: as above with minor amounts of dolomite, dark grey microcrystalline brecciated, very slightly argillaceous.
230–280	Dolomite: dark grey, microcrystalline slightly brecciated; very slightly argillaceous minor white calcite very fine - fine crystalline veinlets and crystals.
280–340	Dolomite: as above. Limestone: minor, grey-black, cryptocrystalline, slightly oolitic and brecciated.
340–350	Dolomite: dark grey, microcrystalline, brecciated, very slightly argillaceous, with white, very fine - fine crystalline calcite.
350–410	Dolomite: medium - dark grey, microcrystalline, very slightly argillaceous, traces of poor intergranular porosity. Limestone: interbeds grey - black, cryptocrystalline, very slightly argillaceous and slightly bituminous.
410–420	Sample not recovered.
420–530	Dolomite: light-dark grey, crypto-micro-crystalline, brecciated, minor white microcrystalline calcite veinlets. Limestone: interbeds, dark grey-black, cryptocrystalline, brecciated with calcite veinlets, slightly oolitic and bituminous.

530-540	Dolomite: light - medium grey, fine - medium crystalline, brecciated, slight poor vuggy porosity, fine - medium crystalline calcite veinlets and crystals. Limestone: black, cryptocrystalline, slightly oolitic and bituminous.
540-600	Dolomite: as above but non porous. Limestone: interbeds as above.
600-640	Dolomite: light - medium grey, brecciated, micro-fine crystalline, very slightly argillaceous. Limestone: minor black, cryptocrystalline, very slightly argillaceous and bituminous.
640-680	As above with minor pyrite crystals and brown arenaceous siltstone.
680-710	Dolomite: grey, crypto-fine crystalline, calcareous dolomitic in parts, very slightly argillaceous, and slightly bituminous.
710-720	Bottom of Pilot Hole, Sample not recovered.
720-730	Dolomite: light grey, micro-very fine crystalline, slightly calcareous and argillaceous. Limestone: grey-black, cryptocrystalline, slightly oolitic and bituminous. Poor sample.
730-750	Dolomite: light - medium grey microcrystalline, very slightly argillaceous. Dolomite: light brown, crypto-microcrystalline.

750–760	Sample not recovered.
760–770	Three foot fast drilling break and lost circulation. Dolomite: light grey, microcrystalline, very fine bedded, friable, no visible porosity. Dolomite: light - dark grey, very fine crystalline matrix with crypto-microcrystalline infill. Quartz: slight trace of quartz crystals present.
770–810	Dolomite: light grey, crypto-microcrystalline, slightly calcareous and very slightly argillaceous. Dolomite: dark grey, microcrystalline.
810–830	Dolomite: as above but with patches of fair pin point - vuggy porosity in the light grey, microcrystalline variety.
832	Lost circulation - drilling break - five foot cavity, probable fault.
840–860	No samples recovered.
860–870	Dolomite: light - medium grey, crypto-microcrystalline, patches of good vuggy porosity in cryptocrystalline portion. Dolomite: black, very fine crystalline, slightly bituminous. Anhydrite: minor, grey, cryptocrystalline.
870–900	Dolomite: grey and black, crypto-microcrystalline, slightly bituminous and laminated. Anhydrite: interbeds, grey, cryptocrystalline.

900–930	As above, but dolomite is cryptocrystalline.
930–1190	Anhydrite: grey, cryptocrystalline. Dolomite: minor interbeds, grey, cryptocrystalline.
1190–1320	Dolomite: grey, cryptocrystalline. Anhydrite: interbeds, grey, cryptocrystalline, dolomite exceeds anhydrite.
1320–1350	As above, but some of the dolomite is microcrystalline.
1350–1360	Dolomite: light–medium grey, microcrystalline, slightly stylolitic. Dolomite: black, crypto-microcrystalline.
1360–1430	Dolomite: light–medium grey, micro - very fine crystalline, traces of poor to fair vuggy porosity, minor bitumen staining in vugs and veinlets. Dolomite: dark grey, microcrystalline. Slightly bituminous, traces of poor vuggy porosity in lower half of interval. Note: Lost circulation 1411'
1430 - 1460	Dolomite: as above but non porous. Dolomite: minor, light - medium grey, fine crystalline, traces of bitumen stain.
1460 - 1480	Dolomite: as above with traces of poor vuggy porosity.
1480 - 1490	Dolomite: as above but non porous.

1490–1520	Dolomite: dark grey - black, micro-crystalline, slightly brecciated. Dolomite: light - medium grey, crypto-microcrystalline.
1520–1530	Dolomite: as above non brecciated but with very slight traces of quartz infilling.
1530–1550	Dolomite: light - medium grey, micro- and cryptocrystalline, traces of fair to good porosity. Dolomite: dark grey - black, microcrystalline, minor anhedral quartz grains.
1550–1590	Dolomite: grey-black, micro and cryptocrystalline, traces of euhedral medium to coarse, crystalline clear quartz and anhedral infils.
1590–1600	Dolomite: as above with traces of poor vuggy porosity.
1600–1650	Dolomite: as above but non porous.
1650–1670	Dolomite: light - dark grey, crypto-crystalline.
1670–1700	Dolomite: as above with minor euhedral medium - coarse crystalline quartz and anhedral infils.
1700 - 1760	Dolomite: as above, slightly stylolitic.
1760–1820	Dolomite: as above. Quartzose Dolomite: minor, light - medium grey, very fine - fine grain quartz, suspended in cryptocrystalline dolomite.

1820-1850	As above with minor fine crystalline pyrite.
1850-1860	Dolomite: as above. Dolomitic Sandstone: in part, light-medium grey, fine grain quartz matrix in cryptocrystalline dolomite cement.
1860-1890	As above but non pyritic.
1890-1930	Dolomitic Sandstone: light - medium grey, fine grain quartz in with cryptocrystalline dolomite matrix cement, traces pyrite crystals. Dolomite: minor, light - medium grey, cryptocrystalline.
1930-1950	Dolomite: light - medium grey, sucrosic, fine to medium crystalline, subhedral - euhedral, traces of fair to good porosity, very slight traces of quartz infil. Dolomite: minor, light - medium grey, crypto-microcrystalline (cavings?).
1950 - 2017	Dolomite: sucrosic, light - medium grey, fine crystalline, in part very fine crystalline, very slightly bituminous in the upper twenty feet, traces of euhedral quartz and anhedral quartz infils. Traces of poor - fair inter-crystalline porosity. Note: Lost circulation at 2017 feet.

2017 - 2020	No sample.
2020 - 2030	Dolomite, grey to grey brown, silty in appearance, white residue; some drusy dolomite, probably fracture infill. Note: very poor sample.
2030 - 2040	Dolomite, grey to grey brown, micro to cryptocrystalline, some silty traces of white anhydrite (cavings?)
2040-2050	Dolomite, grey - brown to black, micro-crystalline, anhydrite infilling fractures.
2050- 2070	Dolomite, grey to black, some white infill dolomite, micro-crystalline, some micro-sucrosic very hard.
2070 - 2080	Dolomite, as above, non sucrosic, veins of white transluscent dolomite within grey - black dolomite, fault infill.
2080 - 2090	Dolomite, dark grey, black layers within, trace white chert.
2090 - 2100	Dolomite, as above with white powdery anhydrite, trace of calcite crystals and trace of sandy dolomite.
2100 - 2110	Dolomite, brown to grey brown, much appears transluscent, cryptocrystalline, increased anhydrite (milky sample) trace green shale.

2110 – 2120	Dolomite; as above, becoming sandy ~~in nature~~, trace of pyrite, quartz fragments scattered through dolomite.
2120 – 2130	Dolomite; grey - brown – black, almost cherty in appearance; trace of white powdery anhydrite.
2130 – 2140	Dolomite; brown, micro-sucrosic; brecciated chert zones.
2140 – 2150	Dolomite; as above, increased white and grey chert, trace of pyrite, trace of brown limestone.
2160 – 2190	Dolomite; dark brown, glittery, abundant chert and pyrite, white brittle anhydrite (transluscent).
2190 – 2200	Dolomite; light grey to brown, micro-sucrosic; dark grey to black, glittery, cream colored; white chert, tripolitic; traces of anhydrite, clear with vitreous lustre.
2200 – 2210	No sample – severly repremanded roughneck!
2210 – 2220	Dolomite; brown to dark grey, microcrystalline, anhydrite veins scattered throughout, dolomite has silty appearance, leaves light grey residue.

2220 - 2230	Dolomite, as above but some becoming silty with occasional quartz grains, indications of brecciation along fractures. traces of chert and anhydrite.
2230 - 2240	Dolomite; very dark brown to black, microcrystalline, almost bituminous in nature, abundant fractures with anhydrite infill; black and white chert veins also.
2240 - 2250	Dolomite; medium grey to brown, micro-crystalline, glittery appearance, anhydrite infilling fracture, minor trace poor pin point porosity.
2250 - 2260	As above; fines indicate a thin sandy zone may have been encountered. Trace of poor pin point porosity in dolomite.
2260 - 2270	Dolomite, as above, with addition of medium grey, very even textured, very hard, microcrystalline dolomite.
2270 - 2280	Dolomite, anhydrite and chert all as above.
2280 - 2290	Minor drilling break for 4 feet in this interval. Dolomite, light grey to brown, micro-crystalline to cryptocrystalline, trace of pin point vugs and open fractures with pyrobitumen coating. Abundant vari-colored tripolitic chert.

2290 – 2300	Dolomite, dark grey, microcrystalline, no visible porosity, anhydrite and chert as above.
2300 – 2310	Dolomite, light grey, microcrystalline, earthy appearance, trace of fractures with bitumen coating.
2310 – 2320	Dolomite, light grey to brown, microcrystalline, glittery, trace of fracture porosity with bitumen coating; perhaps minor vein of dolomitic quartz siltstone.
2320 – 2340	Dolomite; as above, no siltstone.
2340 – 2360	Dolomite, dark grey to brown to buff, trace poor pin point porosity, white to brown soluble anhydrite. Very Poor Samples.
2360 – 2380	Dolomite, dark brown to black, bituminous, crystalline with glittery appearance, very hard and brittle, almost cherty. Many veins of white anhydrite and dolomite.
2380 – 2390	Dolomite, light grey, very anhydritic; anhydrite, white, grey and clear crystalline. Traces of tan siltstone and one fragment of dolomitic sandstone. New Bit @ 2397 (X55R)
2400	No sample.

2400 – 2410	Dolomite, dark grey to black, glittery silty appearance, trace of anhydrite.
2410 – 2430	Dolomite, as above with many fractures filled with white dolomite, trace of pyrite.
2430 – 2440	Dolomite, brown, silty appearance with very fine sand inclusions brecciation, also white chert.
2440 – 2450	Dolomite, dark grey to black, as previous with traces of white crystalline anhydrite and traces of pyrite.
2450 – 2460	Everything in this sample, various dolomites, anhydrite, pyrite, chert and very fine quartz sandstone, light brown.
2460 – 2470	Dolomite, dark grey to black as above.
2470 – 2480	Dolomite, as above, silt and sand scattered throughout.
2480 – 2490	Dolomite, dark grey to brown with white veins, microcrystalline.
2490 – 2500	Dolomite, dark grey to black, very hard, microcrystalline. White dolomite veins, (fracture fill) as above.
2500 – 2510	Dolomite, brown, microcrystalline to siltsize grains; white residue, no quartz white crystalline dolomite as above.

2510 - 2520	Dolomite, brown as above, silty to sandy texture, no quartz bitumen along fractures. No residue in acid.
2520 - 2530	Dolomite, brown as above.
2530 - 2540	Dolomite, brown, microcrystalline, bitumen along fractures, trace pyrite no porosity, no quartz.
2540 - 2560	Dolomite, light brown, microcrystalline to silty in nature. No residue, no quartz.
2560 - 2570	Dolomite as above. Also green-grey banded shale, waxy rusty-red stained erosional rubble, sandstone with dolomite fragments. Pyrite crystals. Green to tan speckled very hard shale? Clear quartz fragments.
2570 - 2580	Dolomite, light to medium grey, micro-cryptocrystalline scattered quartz grains.
2580 - 2590	Dolomite, very light grey, earthy silty appearance when dry, microcrystalline when wet.
2590 - 2610	Dolomite, coarse crystalline with glassy lustre, traces of white anhydrite.
2610 - 2620	Dolomite, brown to grey.

2620 - 2650	Dolomite, grey to brown, microcrystalline. Abundant white chert.
2650 - 2660	Dolomite, light brown to grey, microcrystalline, parts appear silty, no porosity, no quartz, white chert.
2660 - 2680	Dolomite, medium grey, microcrystalline. Minor trace of white anhydrite. Abundant white chert.
2680 - 2690	Dolomite; very dark brown, microcrystalline, traces of anhydrite.
2690 - 2700	Dolomite, brown to grey, microcrystalline, traces of clear anhydrite.
2700 - 2710	No sample.
2717	30 min circulation sample. Dolomite, brown to dark grey, trace of drusy dolomite crystals. Pyrite, trace anhydrite.
	Drilling suspended at 2717' on March 30th at 10:00 A.M. due to spring break up.

Note: From surface casing to 2017' described by Dave Wylie and Peter Vytopil. From 2017' to 2717 described by Dennis Stewart.

Engineering Summary

Drill Stem Tests: - No DST's conducted.

Casing Record:
Surface: - 13 3/8" OD, 48#/ft. H-40 surface casing set at 568 ft. KB with 600 sacks of Construction cement plus 2% $CaCl_2$ plus 2 sacks of fibre seal in the first 200 sacks. Also ran 16 sacks from the surface.

Bit Record:

No.	Serial Number	Type	Size (inches)	Hours Run	Depth In	Depth Out	Footage
1A	38204	X16	8 3/4	21 1/4	0	214	214
2A	38197	X16	8 3/4	18	214	330	116
3A	37860	XDV	8 3/4	25 3/4	330	473	143
4A	37858	XDV	8 3/4	24 1/2	473	590	117
5A	22812	WD7	8 3/4	14 1/4	590	662	72
6A	38270	WD7	8 3/4	7	662	716	54
1B	Drillco	Pilot Reamer	12 1/4	28 1/2	0	616	616
1C	Drillco	Pilot Reamer	17 1/2	34 1/2	0	296	296
2C	Drillco	Pilot Reamer	17 1/2	17 1/2	296	375	79
3C	JG234	DGJ	17 1/2	30 1/4	375	568	193
1	29715	WD7	8 3/4	19	716	843	127
2	31966	WD7	8 3/4	26 1/2	843	994	151
3	33433	XDV	8 3/4	29 3/4	994	1174	180
4	30149	X55R	8 3/4	97 1/2	1174	1905	731
5	38814	X55R	8 3/4	52 1/2	1905	2397	492
6	37258	X55R	8 3/4	43 3/4	2397	2710	313

Mud Report:

The gel-lime mud system used to drill and ream the surface hole contained the following:

Gel	50,200 lb.
Lime	450 lb.
Caustic	900 lb.
Soada Ash	1,850 lb.
Bicarbonate	100 lb.
Sawdust	251 sacks
Fibre Seal	5 sacks

While drilling the 8 3/4" pilot hole mud weight increased from 8.5 to 9.0 lb/gal. and viscosity varied from 31 to 60 sec/qt. While reaming to 17 1/2" hole the mud had an average weight of 9.4 lb/gal. and an average viscosity of 80 sec/qt.

The mud used to drill from surface casing to TD at 2710 ft. KB included the following:

Gel	129,000 lb.
Soda Ash	4,600 lb.
Caustic	2,550 lb.
Peltex	1,600 lb.
Bicarbonate	800 lb.
CMC	800 lb.
Mica	500 lb.
Lime	300 lb.
DV 68	13 gal.
Sawdust	1,898 sacks
Fibre	178 sacks
Interlock	69 sacks
Salt Gel	62 sacks
Fibre Seal	59 sacks
Peat Moss	12 sacks
Nutshell	7 sacks

While drilling from surface casing to TD the average mud weight was 8.6 lb/gal. with an average viscostiy of 60 sec./qt.

Deviation Record:

Depth (ft.KB)	Deviation (degrees)
73	1
118	3/4
173	1/2
220	1/4
279	1
317	3/4
344	1
370	3/4
399	1
426	1/2
454	1
484	3/4
514	3/4
541	1
570	1
635	1/4

Deviation Record: cont'd.

Depth (ft.KB) 1	Deviation (degrees)
670	1
700	3/4
775	7/8
806	3/4
963	1
1025	3/4
1057	3/4
1118	3/4
1170	3/4
1220	1 1/4
1253	1 1/2
1284	1 1/2
1324	1 1/4
1387	1 1/4
1450	1 3/4
1480	1 1/2
1513	1 1/2
1540	1 3/4
1575	1 1/2
1605	1 1/2
1635	1 3/4
1665	1 1/2
1730	1 3/4
1795	1 3/4
1885	1 1/2
1950	1 1/4
2070	1 1/2
2170	1 1/4
2259	1
2380	3/4
2467	1 1/8
2530	1 1/2
2624	1 1/4
2710	1

Abandonment Plugs:

None as such but suspended with the following plugs:

Plug #1: 2710-2610 ft. KB with 50 sacks of cement
Plug #2: 608-508 ft. KB with 70 sacks of cement.

Lost Circulation Zones:

761-765 ft. KB. Lost 100 bbls of mud. Mixed and pumped lost circulation material.

832-858 ft. KB. Continuously mixed and pumped lost circulation material while drilling blind.

1074 ft. KB. lost 100 bbls mud. Mixed and pumped lost circulation material.

1132 ft. KB. Lost 70 bbls mud. Mixed and pumped L.C.M.

1288 ft. KB. Lost 180 bbls mud. Suspected lost circulation at 832-835. Mixed and placed a 30 bbl salt gel plug at 832 ft. KB.

1410 ft. KB. Lost 360 bbls of mud. Suspected lost circulation zone at 832-835. Mixed and pumped mud and L.C.M. Pumped down salt gel plug.

1470 ft. KB. Lost more than 50 bbls of mud. Suspected lost circulation zone at 832-835. Mixed and pumped mud & L.C.M. Pumped down salt gel plug. Mixed & pumped mud & L.C.M. Pumped down 100 cut up sawdust sacks. Pumped 200 bbls of mud & L.C.M. Regained circulation at 859 ft. KB.

1522 ft. KB. Ran cement plug #1 open ended at 835 ft. KB with 50 sacks cement plus 2% $CaCl_2$ with full returns. Shut Hydril, squeezed one bbl. and lost circulation. Pulled out, fluid level at 320 ft. KB. Felt plug at 837 ft. KB. Cleaned out to 846 ft. KB. No returns. Ran plug #2 with 50 sacks cement plus 2% $CaCl_2$. Felt plug at 826 ft. KB. Cleaned to 846 ft. KB with full returns. Ran plug #3 with 50 sacks cement plus 2% $CaCl_2$. Squeezed 4 bbls over one hour with max. pressure of 100 psi. Felt plug at 800 ft. KB. Drilled out cement and continued drilling.

2017 ft. KB lost circulation and ran cement plugs:

Plug #4: (at 2005'KB) 50 sacks cement plus 25 sacks calseal went away on vacuum. WOC one hour.

Plug #5: (at 2005'KB) 50 sacks cement plus 25 sacks calseal away on vacuum. WOC one hour.

Plug #6: (from 1970'KB) 50 sacks cement plus 25 sacks calseal away on vacuum. WOC one hour.

Cut up 100 sawdust sacks and displaced to 2005 ft. KB.
Plug #7: (from 1900'KB) 50 sacks cement plus 25 sacks calseal. WOC one hour.

Obtained circulation. Ran in open ended to 1800 ft. KB. Trip for bit. Drilled out plug to 1880'KB and lost circulation. Trip to remove bit and run in open ended. Pumped down 50 cut up sawdust sacks.

Plug #8: (from 1820 ft. KB) 50 sacks cement plus 25 sacks calseal. Away on vacuum.

Ran to bottom open ended and found one ft. of fill. Pumped down 50 cut up sawdust sacks.

Plug #9: (from 1972 ft. KB) 50 sacks cement plus 25 sacks calseal on vacuum. Pumped down 50 cut up sawdust sacks.

Plug #10: (from 1800 ft. KB) 50 sacks cement plus 25 sacks calseal on vacuum.

Plug #11: (from 1800 ft. KB) 50 sacks cement plus 25 sacks calseal. Felt top at 1930 ft. KB. Trip for bit and drill out to 1970 ft. KB and lost ciruclation. Trip to remove bit and rerun open ended. Fluid level @ 300 ft. KB.

Plug #12: (from 1800 ft. KB) 50 sacks cement plus 25 sacks calseal. WOC and then filled hole and circulated at 1700 ft. KB. Ran to 2004 ft. KB and circulated. Tag bottom and lost circulation.

Plug #13: (from 2004 ft. KB) 50 sacks cement plus 25 sacks calseal.

Pumped down 25 cut up sawdust sacks, pulled 9 stands and pumped down 20 bbls diesel fuel.

Plug #14: (from 1940 ft. KB) 50 sacks cement plus 25 sacks calseal. Ran in to feel plug and plugged drill pipe. Pulled out to clean pipe. Ran bit and cleaned out to TD.

Report of Blowouts: None.

Logs

One copy of each log run is attached to this report. All logs were run by Schlumberger.

Date	Run No.	Interval (ft.KB)	Type of Log Run	Scale
30 March 72	one	2708-560	Borehole Compensated Sonic	2" & 5"
30 March 72	one	2696-560	Dual Induction-Laterolog	2" & 5"
30 March 72	one	2708-561	Formation Density	5"
30 March 72	one	2708-561	Sidewall Neutron Porosity	5"
31 March 72	one	2707-561	Continuous Dipmeter (computed)	2"
31 March 72	one	2707-561	Continuous Dipmeter	5"

Analysis

Core Analysis: - None

Water Analysis: - None

Gas Analysis: - None

Oil Analysis: - None

Completion Summary

Tubing Record: - No tubing was run.

Perforation Record: - No perforations.

Cementation Record: - The 13 3/8" surface casing was set at 568 ft. KB with 600 sacks of Construction cement plus 2% $CaCl_2$ plus 2 sacks of fibre seal in the first 200 sacks of cement. Also, 20 sacks of cement were run from the surface.

The well was suspended with the following cement plugs:

Plug #1: 2710-2610 ft. KB. Ran 50 sacks of cement April 1, 1972.

Plug #2: 608-508 ft. KB. Ran 70 sacks of cement April 1, 1972.

Acidizing and Fracturing: - None.

Back Pressure and Production Tests: - None.

File No.....

Drilling Authority No. 575

CANADA

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

TB

Application to Amend a Drilling Authority

This application, in triplicate, must be submitted and approved before commencing operations. If the well location is changed, this application must be accompanied where required, with a plan of survey approved by the Surveyor General.

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made to amend Drilling Authority No. 575, concerning HB et al Willow A-39

(Name and Number of Well)

The following amendments are required:

FROM: Unit C Section 39 Grid 62-50-122-45

TO: Unit A Section 39 Grid 62-50-122-45

FROM: Unique Well Identifier: 300C396250122450

TO: " " " 300A396250122450

Reasons for the amendments: Clerical

Dated at Edmonton, this 22 day of Feb., 1972

Signed by [signature]

Title Asst. Drlg Foreman

Company Hudsons Bay Oil & Gas

(For Oil and Mineral Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:

Date Feb 24, 1972

Oil Conservation Engineer

Forms to be submitted to the Oil Conservation Engineer, Department of Indian Affairs and Northern Development, Calgary, Alberta.

IAND 52-90-3 (9-69)