

BUTTES ET AL
BLACKWATER LAKE
1-54-A

Drilling Authority No. 504
Date issued 1 March 1971

WELL NAME: Buttes et al Blackwater Lake T-50-A
FIELD: Area:
LOCATION: Unit: Section: 51
Latitude: 41-33-42.48 Longitude: 122-32-40.1
U.W.L.R.: 41.5621 --- 122.66116
U.W.I.: 30015.6110122300

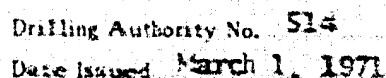
Rig Release Date:

Status.

Information Release Date.....

CHANGE OF NAME:

DATE RECEIVED	INDEX
1 March 1971	Application for a Drilling Authority.
	Well Completion Data.
	Well History Report.
	Application to Amend a Drilling Authority.
5-5-71	Application to change a Well Name.
29	
4-1-71	Application to Abandon a Well or Suspend Drilling.
	Application to Alter Condition of a Well.
	Well History Supplement.
29-4-71	Well Completion Data.
	Work-over Report No.
	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.
	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 AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

To be submitted in duplicate within thirty days after the completion, rework, abandonment, recompletion or suspension of every well.

Well name and number Buttes et al Blackwater Lake I-541

Permit No. 3443 Lease No. N/A

Shell Canada Limited and Exploratory Licence No. 108 and 116
~~Shell Explorer Limited~~

Buttes Resources Northern Ltd. Exploratory Licence No. 1807
(Operator)

Location: Unit I Section 54 Grid 64° 40' N, 122° 30' W

Latitude 64° 33' 43.88" N Longitude 122° 39' 40.18" W

Unique well identifier 302IS46440122300

Universal Well Location Reference 64.56218° N, 122.66116° W

	DATE	DEPTH	Pool(s)	Interval(s) open to production
Spudded.....	Mar 7/71			None
Suspended.....				
Resumed Operations.....				
Finished Drilling.....	Mar 30/71	4515 (Drill)		
Deepened.....		4513 (Logger)	Elevation: Gr. 782	K.B. 794
Complete (gas/oil).....			Rig No. 2	
Abandoned.....	Apr 3/71		Drilling Contractor	Tri City Drilling
Rig released.....	Apr 3/71		Contractor's Business Licence No.	787

CASING RECORD

	Casing Size (inches)	Grade	Weight	Amount	Set wt -	Sacks of Cement and Additives
1.	8 5/8	T-55	24#	977.27'	991.99	540 sxs Permafrost cement.
2.						150 sxs oilwell cement.
3.						+2% CaCl ₂
4.	13 3/4"	H-40	48#	2 jts.	57'	35 sacks permafrost cement.
5.						Pulled.
6.						

GEOLOGICAL TOPS	ELEVATION		CORE RECORD					
	Depths	Sub-Sea	From	To	Rec.	From	To	Rec.
E-LOG TOPS			No cores cut					
Drift	0-564?							
Cretaceous	564?	+230						
Bear Rock	878	-84						
Bear Rock Dol.	1498	-704						
Lower Bear Rock	1768	-974						
			LOG RECORD					
			Run No.	Type of Log		From	To	
Mt. Kindle	2775	-1979	1	Dual Induction Latera-				
Franklin Mtn.	3384	-2590		log		992	4509	
Saline River	4395	-3601	1	Borehole Compensated				
				Sonic Log		992	4510	
T.D.	4515	-3721	1	Formation Density Log		992	4511	

CEMENTING RECORD (Plug, Squeeze, etc.)				PERFORATING RECORD (Ball- ^u , Jet)				SERVICING RECORD (Acidizing, Fracing, etc.)			
Date	From	To	Remarks	Date	From	To	Remarks	Date	From	To	Remarks
Apr 2/71	4415	4515	38 sxs NEAT Cement								
Apr 2/71	3000	3100	48 sxs Cement + 24 CaCl ₂								
Apr 3/71	950	1050	65 sxs Cement + 24 CaCl ₂								
	Surface		5 sxs								
Molded in place and installed well stem											

DRILL STEM TESTS

No.	Date	Formation	From	To	V.O. Mins.	I.S.L. Mins.	F.S.L. Mins.	I.S.L.R.H.P.	F.S.L.R.H.P.	L.F.B.H.P.	F.F.B.H.P.	L.H.P.	F.H.P.	REMARKS
1	Apr 1/71	Bear Rock	1474	1580	120	60	120	596	463	96	220	740	730	Good air blow initially and throughout, received 384' water cut drilling mud.
2	Apr 1/71	Bear Rock	1700	1765	120	60	120	682	681	234	645	864	851	Strong air blow initially and throughout, recovered 435' saltwater cut mud, 1033' muddy salt water.

ANALYSIS

Lab. No.	Sample	From	To	Source	Remarks	PRESENT STATUS OF WELL				Company	Signed by	Title	Date
CORE LAB						Oil			(Interval)	Buttes Resources Northern Ltd.	<i>P. Geol.</i>	Staff Exploration Geologist	April 29, 1971
033-1485	Water	1474	1580	DST #1	Cl ⁻ 29 mg/liter	Gas			(Interval)				
033-1485	Water	1700	1765	DST #2	Cl ⁻ 935 mg/liter	Dry	X						
						Susp.							



File No. _____
Drilling Authority No. **514**

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

MAR 1971

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 **Buttes et al Blackwater Lake I-54A**
Location: Unit **I** Section **54** Grid **64°40', 122°30'**
Latitude **64°33'43.88"N** Longitude **122°39'40.18"W**
From Established Reference Marker
Universal Well Location Reference **64.56218°N, 122.66116°W**
Permit No. **3443** Lease No. **N/A**

Shell Canada Limited, Shell Explorer
(Permitter, Licensee, Lessee) **Limited**

Date of commencement of proposed program **April 2, 1971**

OIL, GAS, AND WATER ENCOUNTERED (Depths)

Oil at **none**
Gas at **none**
Water at **none**
Total Depth **4515** Date of last operations **April 2, 1971**
Present condition of well **Standing at I.D. Preparing to abandon.**

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Pulled
1. 8 5/8	24#	977.3	992	540 sxs Permafrost &	None
2.				150 sxs oilwell + 2#	CaCl₂
3.					
4.					
5. Conductor Pipe: 13 3/4" 48# 2 fts.	57'			35 sacks permafrost cement.	Pulled.

PROPOSED ABANDONMENT PROGRAM

Plug		Geological Formation	Number of Sacks of Cement	Remarks
No.	Position			
1	4415-4515	Saline River	38	
2	3000-3100	Mount Kindle	48	2# CaCl₂
3	950-1050	Bear Rock	65	2# CaCl₂
	Surface		5	

The following logs have been run **DILL, BHCS, FDC.**
Other operations proposed **Run abandonment plugs.**

Operations to be carried out by **Halliburton Services** Contractor Licence No. **787**
Address **275 Bentall Bldg., Calgary 2** Address **14305 - 120 Ave. Edmonton**
Responsible Agent in field **W. Funka**
Dated at **Calgary**, this **2** Day of **April**, 19 **71**
Signed by **R. E. Smith, R. E. Smith** Company **BUTTES RESOURCES NORTHERN LTD.**
Title **Staff Exploration Geologist** Operator's Exploratory Licence No. **1807**

Note:—The Oil 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:

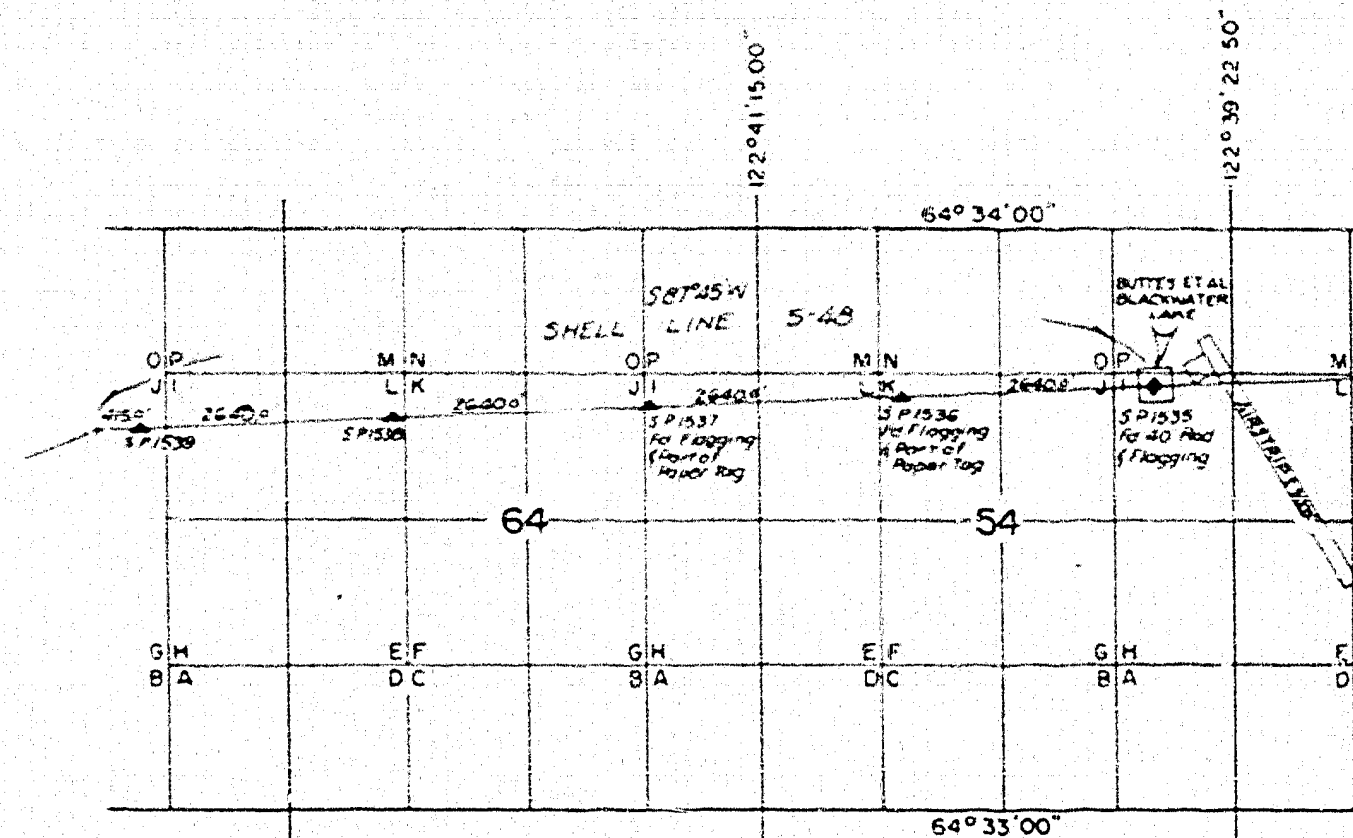
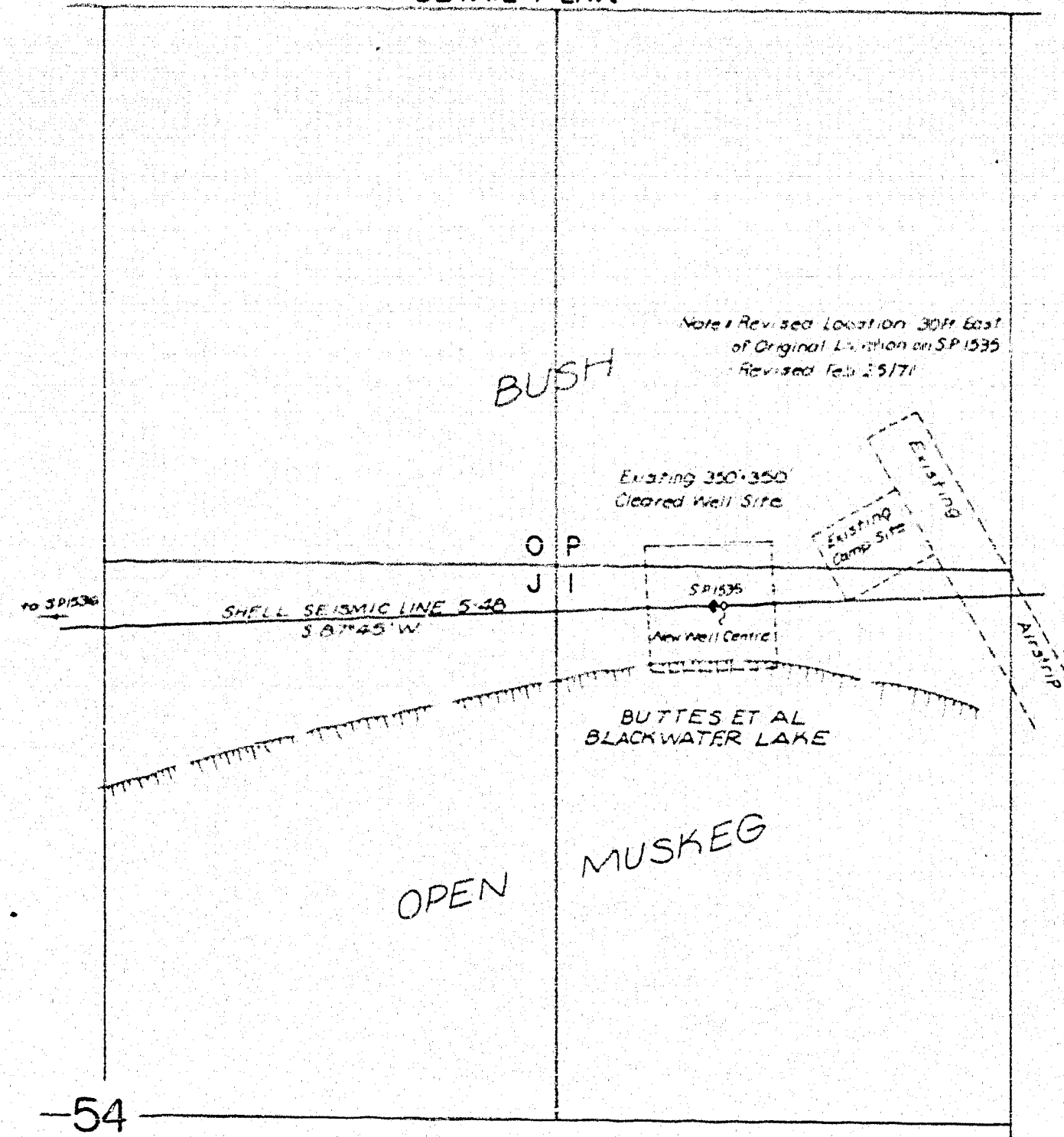
Confirming oral approval given by Mr. G. E. Elms on the 1st April 1971, including installation of well marker.

Dated **May 5**, 19 **71** **G. E. Elms**
Oil Conservation Engineer

LAND 52-90 (5) (2-69)

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

DETAIL PLAN



LOCATION PLAN

Scale 2000 ft to 1 inch

BUTTES ET AL BLACKWATER LAKE
154A 64°40', 122°30'Latitude 64°33'43.88" Longitude 122°39'40.18"
Northwest TerritoriesSurvey completed on January 24, 1971
Certified correct

D. R. Lantham
Alberta Land Surveyor

R. J. Hawthorne
Witness

MIDWEST SURVEYS CO. LTD.

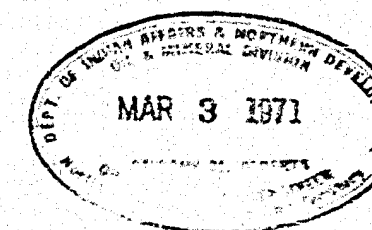
CO-ORDINATES

CUTM Values		Ref Mer. 123°00'
STATION	NORTH	EAST
Well Centre	23,496,260.9	53,297.2

NOTE: Rectangular co-ords from Shell Seismic Survey
Well Centre (SP 1535) is 113.8' South of NE Corner Unit 1
772.1' West

ELEVATION: 762' GROUND

BUTTES RESOURCES NORTHERN, LTD.



R. E. Griffiths

C. G. B. Brien

Scale 400 feet to 1 inch or as shown
Iron Rod found shown thus 
Shot Point positions found shown thus 

DATUM: Elevation from
SHELL seismic notes

Revised: Feb. 25/71



C-11-71

Drilling Authority No. 514

Project No.

File No.



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

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 Buttes et al Blackwater Lake I-54A
 Location: Unit I Section 54 Grid 64° 40' 122° 30'
 Latitude 64° 33' 43.88" N Longitude 122° 39' 40.18" W
 Unique Well Identifier 302 IS46440122300
 Universal Well Location Reference 64.56218° N, 122.66116° W
 Elevation: Ground 782' K.B. 800' feet above sea-level.
 Well is expected to produce from Mt. Kindle formation at a depth
 of about 2550 feet. Expected total final depth 4200'
 Area assigned to well

(for Oil Conservation Engineer's use only)

Permit No. 3443 Lease No. N/A Acreage 55,000
 Permittee, licensee, or lessee Shell Canada Limited and Shell Explorer Limited
 Exploratory Licence No. 108 and 116
 Surface owned by Crown or Crown (If otherwise 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:—

Casing Size O.D. (Inches)	Weight (Lb./Ft.)	Grade	New or Used	Estimated Depth	Section of Cement
1. <u>8 5/8</u>	<u>24#</u>	<u>K-55</u>	<u>New</u>	<u>1000'</u>	<u>TD to surface</u>
2.					
3.					
4.					
5.					

Expected water, gas, and oil horizons and type of control equipment.

Cretaceous, Bear Rock, Mt. Kindle. To be controlled by B.O.P.'s on drilling rig.

Well will be drilled with Rotary Rig No. 2 by Tri-City Drilling Ltd.
 (Drilling Contractor or company)

Responsible agent of applicant:— Contractor's Business Licence No. 787
 At well W. Hunka At registered office R.E. Griffiths
 Address #2203, 727-6th Ave. S.W. Calgary Address 1530, 606-4th St. S.W., Calgary
 It is understood that if changes become necessary, notice of the change of plan will be submitted.
 Dated at Calgary, this 25th day of February, 1971
 Signed by R.E. Griffiths R.E. GRIFFITHS Company Buttes Resources Northern, Ltd.
 Title Staff Exploration Geologist Operator's Licence No. 1807

(For Oil and Mineral Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:—

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, the latest reports

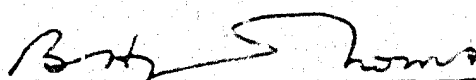
Dated 1st March 1971 Please see over page

Oil Conservation Engineer

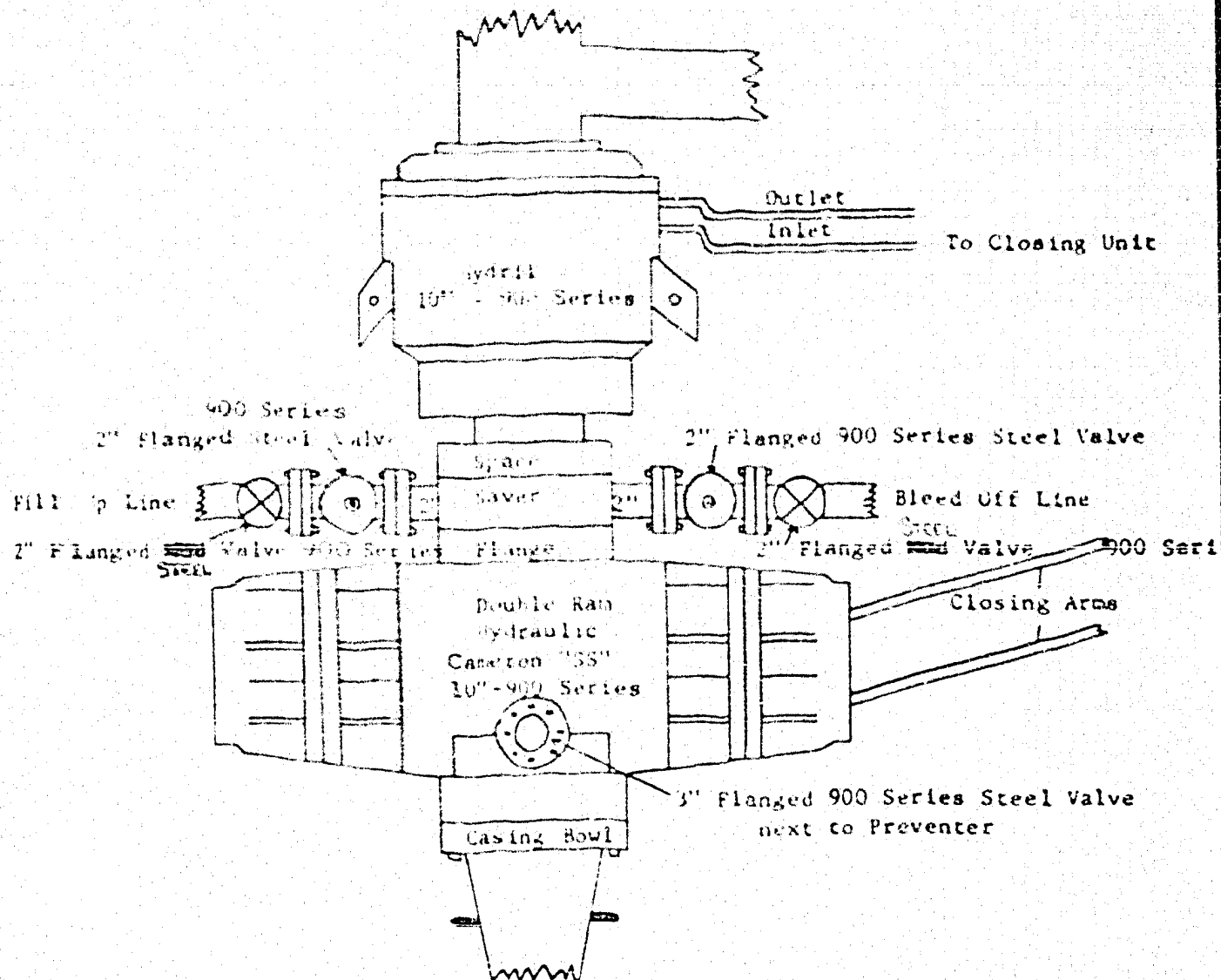
Forms to be submitted to Oil Conservation Engineer,
Department of Indian Affairs and Northern Development, Calgary, Alberta.

by radio on the progress of the well.

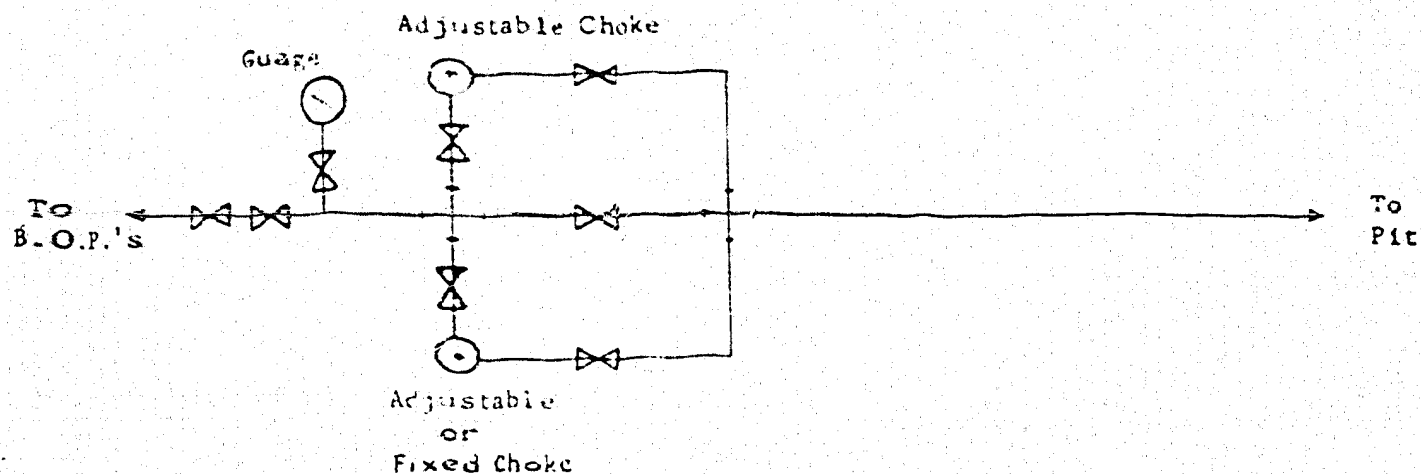
3. During well drilling and testing operations, every effort shall be made to ensure that drilling fluids, chemicals and wastes shall be disposed of or contained in a manner that will prevent the contamination of adjacent vegetation and surface or sub-surface waters.
4. We draw your attention to Sections 95 and 96 of the Canada Oil and Gas Land Regulations.
5. Any additional strings of casing are to be approved by the Oil Conservation Engineer prior to running.



B.H.J. Thoms, Oil Conservation Engineer



HIGH HAZARD CHOKE MANIFOLDS



BUTTS ET AL. BLACKWATER LAKE I-54A

6th April 1971 TOTAL DEPTH: 4515'. Abandoned.

DST #1 1474 - 1580'. Bear Rock. Preflow - 10 mins.
ISI - 60 mins., VO - 120 mins., FSI - 120 mins.

Fair initial puff on preflow and increased to good on
preflow and continued throughout test. Recovered 304'
water cut mud estimated 30% recovery - water.
Filtrate 220 ppm Cl_2 make up water 20 ppm.

ISIP	589	FSIP	503
IFP	96.5	FFP	217.5
IHP	741	FHP	739

DST #2 1700 - 1765'. Preflow - 10 mins.
ISI - 60 mins., VO - 120 mins., FSI - 120 mins.

Good initial puff, strong air blow throughout test.
Rec. 435' salt water cut mud and 1033' muddy salt water.
SIP 686-686; FP 198-633; HP 895-895.

LOGS RUN: DIL, BHC-S, PDC.

TOPS:	Slave Point	11'
	Chinchaga	1750'
	Precambrian	2048'

PLUG #1 4515 - 4415', 38 sacks cement.

PLUG #2 3100 - 3000', 48 sacks cement + 2% $CaCl_2$. Felt @ 3005'.

PLUG #3 1050 - 950', 65 sacks cement + 2% $CaCl_2$. Felt @ 935'.

Cut off casing 2' below ground level. Welded on plate and
installed riser with well sign.

RELEASED RIG: 3rd April 1971.

FINAL REPORT

LOST CIRCULATION PLUGS:

- #11 @ 5622', 111 sacks cement + 4% CaCl_2 + 1 sack gel flake.
Felt @ 5614'.
- #12 @ 5614', 126 sacks cement + 4% CaCl_2 + 1 sack gel flake.
- #13 @ 5611', 80 sacks cement + 25% plaster. Felt @ 5606'.
- #14 @ 5606', 60 sacks cement + 25% plaster. Felt @ 5488'.
- #15 @ 5746', 105 sacks cement + 4% CaCl_2 . Felt @ 5741'.
- #16 @ 5741', 109 sacks cement + 4% CaCl_2 . Felt @ 5741'.
- #17 @ 5741', 95 sacks cement + 4% CaCl_2 . Felt @ 5741'.
- #18 @ 5741', no particulars.

BUTTES ET AL BLACKWATER LAKE I-54A

23rd March 1971

DEPTH: 3290'. Drilling.

TOPS:	Bear Rock	795'
	Mount Kindle	2770' ?

LITHOLOGY:

996 - 1550', mostly light brown and white anhydrite with thin interbeds of dolomite, same color, microcrystalline and crystalline.

1550 - 1770', white and light brown dolomite and anhydrite beds of poor intercrystalline porosity - dolomite.

1770 - 2330', light brown anhydrite with thin interbeds microcrystalline dolomite.

2330 - 2770', light brown anhydrite and light brown dolomite, microcrystalline with interbedded red beds.

2770 - 2970', dolomite, microcrystalline with some beds of very fine crystalline, light brown with common quartz crystals, traces of poor crystalline porosity

2970 - 3070', dolomite, microcrystalline and very fine crystalline, medium and dark brown with few common quartz and calcite crystals, traces of pyrobituminous crystals, indications of open vugs and fractures.

3070 - 3120', very common dark brown massive chert.

717-11-5-2

WELL HISTORY REPORT

Buttes or al Blackwater Lake I-54-A



BUTTES RESOURCES CANADA, LTD.

717-11-5-2.

WELL HISTORY REPORT

Bittes et al Blackwater Lake I-54-A



By:

W. Hunka, P. Eng.

R.E. Griffiths, P. Geol.

April 20, 1971

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Enclosures

1. One copy of Compensated Formation Density Log -----	In Pocket
2. One copy of Borehole Compensated Sonic Log -----	In Pocket
3. One copy of Dual Induction-Laterolog -----	In Pocket

I. SUMMARY OF WELL DATA

a. Well Name	Buttes et al Blackwater Lake I-54-A
b. Permittee	Shell Canada Limited and Shell Explorer Limited
c. Operator	Buttes Resources Northern, Ltd. #1530, 606 - 4th Street S.W., Calgary 2, Alberta.
d. Location	I-54-64-40-122-30 64° 33' 43.88" N, 122° 39' 40.18" W Universal well location reference: 64.56218° N, 122.66116° W Unique well identifier: 502 1546440122300
e. Co-ordinates	N/A
f. Permit No.	5443
g. Drilling Contractor	Tri-City Drilling Ltd. Rig #2, Unit 34 Trailer Rig with 97 ft. Lee C. Moore mast rated at 300,000 lbs.
h. Drilling Authority	#514 issued March 1, 1971
i. Classification	New field wildcat
j. Elevations	Ground 782', K.B. 794'
k. Spudded	5:15 A.M., March 7, 1971
l. Completed Drilling	March 31, 1971
m. Total Depth	4515'
n. Status	Dry and Abandoned
o. Rig Released	6:00 P.M., April 3, 1971
p. Hole size	0 - 58' 15" 58 - 996' 12 1/2" 996 - T.D. 7 7/8"
q. Casing	8 5/8" 992' Surface casing to 992' w/540 sacks permafrost and 150 sacks O.W. + 2% CaCl ₂ Conductor Pipe: Ran 2 jts. 13 3/4" H-40 48# to 57'. Cemented w/35 sacks perma frest cement. Pulled

II. GEOLOGICAL SUMMARY

a. Formation Tops:

	<u>Sample</u>	<u>E-Log</u>	<u>Elev.</u>
Drift		0 - 564'	
Cretaceous		564'	+230
Bear Rock	795'	878	- 84
Bear Rock Carbonate	1555	1498	-704
Lower Bear Rock	1765	1768	-974
Mount Kindle	2775	2773	-1979
Franklin Mountain	3385	3384	-2590
Saline River	4390	4395	-3601

b. Cored Intervals None

c. Core Description N/A

d. Sample Description Follows on pages 3, 4, 5 and 6

e. Paleontological Determinations - none

BUTTES ET AL. BLACKWATER LAKE I-54-ASAMPLE DESCRIPTION

- 800-900 Dolomite; lt. brn, micro and v.f.x'n, earthy and microsucrosic in part, anhydritic, traces of poor pinpoint porosity; interbedded with 10-50% Anhydrite, lt. brn-gry, microx'n, dolomitic.
- 900-1550 Anhydrite; lt. brn & wht, cryptox'n & microx'n; interbeds of 10-20% Dolomite; lt. brn, micro & cryptox'n, rare trace of pyrobitumen (?).
- 1550-1770 Dolomite; lt. brn, micro to v.f.x'n, earthy in part, microsucrosic in part, traces of pyrobitumen, traces of dark brn microx'n limestone, common poor to fair (2-6%) interx'n porosity; dol. occurs in units 10-30' thick. Interval contains + 50% Anhydrite, white & lt. brn, micro & v.f.x'n.
- 1770-1940 Anhydrite; white & lt brn, crypto & microx'n with some coarse x'n, dolomitic in part. Minor amounts of Dolomite, lt. brn, microx'n, anhydritic.
- 1940-2020 Anhydrite; white & lt. brn, crpto & microx'n, dolomitic in part with thin streaks of red dolomitic anhydrite, anhydrite and red shale with rare green argillaceous anhydrite, rare floating sand grains.
- 2020-2320 Anhydrite; clear, white & lt brn, mainly micro and coarse x'n, dolomitic in part, some thin beds of lt. greenish grey argillaceous, dolomitic anhydrite; common thin interbeds of dark brown, microx'n limestone scattered throughout the interval.
- 2320-2620 Anhydrite; white, light to medium brown and less commonly light greenish grey, mainly micro to cryptox'n with some coarse x'n, dolomitic in part, silty in part; with minor interbeds of dolomite, lt brn-grey, micro & crptox'n, anhydritic in part, silty in part. Common interbeds of red silty anhydrite & dolomite throughout, rare floating sand grains and rare thin shale beds, a few greenish-grey beds.
- 2620-2670 Dolomite; lt. brn & lesser med brn, micro to cryptox'n, anhydritic in part; with 20-50% Anhydrite, lt brn & wh, micro to cryptox'n, dolomitic in part; some beds of lt grn-grey anhydrite.
- 2670-2775 Anhydrite; mainly lt brn, micro to cryptox'n, some beds med brn & lt grn-gy, dolomitic; with 10-25% Dolomite, lt. brn, micro to cryptox'n, anhydritic in part. Traces of dk brn, microx'n limestone.

Buttes et al Blackwater Lake I-54-A

- 2775-2790 Dolomite: lt brn, very fine x'n, slightly anhydritic, poor interx'n porosity, common fine qtz x'tls could indicate open vugs.
Possible top Mt. Kindle 2790'
- 2790-2810 Dolomite: lt brn, micro to v.f. x'n, siliceous, common fine quartz crystals with a few coarse clear gypsum x'tls. In the interval 2790-2800 a $\pm$ 2' bed of chert, chalk-white, oolitic. Interval could have vuggy porosity and/or fractures.
- 2810-2840 Dolomite: lt. brn, very fine-microx'n, anhydritic & siliceous in part, a few fine quartz x'tls $\pm$ 25%. Anhydrite: lt. brn, micro to cryptox'n, dolomitic.
- 2840-2900 Dolomite: lt. brn, very fine & microx'n, sucrosic in part, a few quartz crystals, poor interx'n porosity.
- 2900-2950 Dolomite: lt brn, micro to cryptox'n, scattered few qtz and calcite x'tls.
- 2950-3060 Dolomite: lt and med brn, crypto-micro-v.f. x'n, common to abundant quartz and calcite x'tls, siliceous in part, traces of pyrobitumen & chert, traces of poor interx'n porosity, could have good vuggy or fracture porosity. 3050-60 is v.f. x'n dol. w/fairly good interx'n porosity.
- 3060-3100 Dolomite: lt, med & drk brn, microx'n, argillaceous in part, silty in part, common to abundant dark brn chert, traces of opal.
- 3100-3190 Dolomite: lt brn & med brn, microx'n, traces of chert, qtz & calcite x'tls & pyrobitumen. Rare trace of vuggy porosity.
- 3190-3280 Dolomite: lt & med brn, mainly v.f. x'n, siliceous and calcareous in part, traces of pyrobitumen, a few qtz & calcite xtls, traces of poor interx'n porosity, rare crinoid fragments. 3260-70 fair interx'n porosity.
- 3280-3350 Dolomite: lt & med brn, very fine to fine x'n, traces of poor to fair intercrystalline porosity, fairly common pyrobitumen, fairly common crinoid fragments. 3310-20 some lt. grey-white spicular chert. 3340-50 fairly common brn & blk chert.
- 3350-3355 Shale; black, brn streak, slightly dolomitic, petroliferous. Has a strong "sweet crude" odour when fresh.
- 3355-3385 Shale; med to drk grey and lt greenish-grey, dolomitic, fairly common floating sand grains near base.

Top Franklin Mtn. 3385'

Buttes et al Blackwater Lake I-54-A

- 3385-3430 Dolomite; pale greenish grey & white, micro to med x'n, clean, tight, traces of pyrite.
- 3430-3470 Dolomite; as above with traces of pink dolomite
- 3470-3620 Dolomite; lt gry to white with traces of pink, very fine to medium x'n, sucrosic in part, traces to common white chert, oolitic in part, scattered calcite and quartz crystals.
- 3620-3630 Dolomite; lt gry, very fine to microx'n, slightly silty.
- 3630-3740 Dolomite; lt, med. & drk brn, very fine to microx'n, arg. in part, traces of white chert-oolitic in part, traces of pyrite.
- 3740-3760 Dolomite; light to dk greyish brn, microx'n, argillaceous, slightly silty, grades in part to dolomitic shale.
- 3760-3770 Dolomite; light to medium greyish brown, micro to fine x'n, slightly silty and argillaceous
- 3770-3840 Dolomite; light to med. grey and med to drk brn with some white, mainly microx'n, sl. silty, argillaceous in part.
- 3840-3940 Dolomite; white, light & med gry, microx'n, silty, slightly argillaceous in part, rare traces of white oolitic chert, traces of dark brn argillaceous dolomite, traces of pyrite.
- 3940-4050 Dolomite; white & lt to med brn, micro to fine x'n, sucrosic & silty in part, common qtz x'tls, common calcite x'tls, traces of poor interx'n & vuggy porosity.
- 4050-4090 Dolomite; lt to drk brn, micro to v.f. x'n, slightly silty & argillaceous, traces of gypsum & calcite x'tls & pyrobitumen.
- 4090-4190 Dolomite; lt. to med grey & lt to med & dk brn, micro & cryptox'n, slightly silty & argillaceous, traces of gypsum x'tls & pyrite.
- 4190-4250 Dolomite; white & lt to med greenish grey, largely cryptox'n slightly silty and argillaceous, grades in part to dolomitic shale.
- 4250-4270 Dolomite; lt to med brn, v.f. x'n, sucrosic in part, slightly silty & argillaceous.
- 4270-4295 Dolomite; lt to drk brn, microx'n, silty, argillaceous, grades to dolomitic shale, trace of brn chert.

Buttes et al Blackwater Lake I-54-A

4295-4340

Shale; drk greenish gry & drk brn, slightly dolomitic, with minor interbeds of Dolomite, lt to drk brn, cryptox'n, slightly silty and argillaceous.

4340-4390

Siltstone; lt to drk gry, dolomitic, sl. argillaceous interbedded with silty dolomite and drk gry dolomitic shale, drk brn in part.

Top Saline River 4390'

4390-4515

Siltstone; lt to med gry, also red and light green, dolomitic, grades in part to silty dolomite, slightly anhydritic; interbedded with shale, lt gry, lt grn and red, silty, dolomitic, slightly anhydritic, micromicaceous, common gypsum crystals.

III. ENGINEERING SUMMARYa. Drill Stem TestsDST #1 - 1474' to 1580'

PT 10 mins., ISI 60 mins., VO 120 mins.

FSI - 120 mins.

G.I.A.B. Good air blow throughout.

Recovered 384' water cut drilling mud.

Pressures:

ISIP 596 IEP 96 IHP 740

FSIP 463 FEP 220 FHP 730

DST #2 - 1700' to 1765'

PT 10 mins., ISI 60 mins., VO 120 mins.

FSI 120 mins. S.I.A.B. Strong air blow throughout. No GTS.

Recovered 435' s.w. cut mud, 1033' mdy
s.w.

Pressures:

ISIP 682 IEP 234 IHP 864

FSIP 681 FEP 645 FHP 851

b. Casing Record

Surface Casing Report:

Well Name:

Buttes et al Blackwater Lake I-54-A

Pipe Description:

8 5/8", 24#, T-55, Rge. 2 Mannesman

1	32.42	11	25.68	21	31.50	31	30.80
2	32.52	12	30.36	22	32.37	32	30.15
3	31.36	13	33.27	23	32.95	33	36.72
4	31.58	14	33.52	24	32.82	34	
5	31.33	15	32.50	25	31.25	35	
6	32.26	16	33.02	26	32.22	36	
7	32.27	17**	24.96	27	29.20	37	
8	30.38	18	29.64	28	33.12	38	
9*	28.42	19	31.92	29	29.45	39	
10	31.72	20	27.88	30	31.09	40	
	314.26		302.75		315.97		97.67

1-10	314.26
11-20	302.75
21-30	315.97
31-40	97.67
TOTAL	1030.65
less	53.38
Left in Hole	977.27
Shoe	1.10
Float Collar	1.62
Casing & Float Equip.	979.99
K.B. to Collar	12.00
Bottom of Shoe	991.99
Shoe Jt.	35.14
Top of Collar	956.85

Rig up to Run casing - 3/4 hr.

Run casing - 5 hours

Circulate - 1 3/4 hr.

Cementing - 1 3/4 hr.

Plug down at - 4:00 A.M. March 13, 1971

Cemented with 540 ssxs of permafrost cement
followed by 150 sxs of oilwell cement
+ 2% CaCl_2 .

28.42 * - left out Joint #9

24.96 ** - left out Joint #17, Landing joint

53.38 - total left out

CONDUCTOR PIPE: Ran and cemented 2 jts. 13 3/4" H-40 L8# at 57' w/35 sacks
permafrost cement. Pulled.

BIT RECORD

NO.	SIZE	NAME	TYPE	JET SIZE	SERIAL	DEPTH OUT	FEET	HOURS	ACC. HRS.	COND T R G	WT.	RPM	DEV.	PUMP PRESS.
1A	15	IN	OSC-3		RT	57	57							
2A	12 1/2	"	OSC-3	3-18	Used	345	288				10	120	1	800
3A	12 1/2	"	OSC-3	3-18	26974	868	523	17 3/4		311	10	120	1	800
4A	12 1/2	"	OSC-1GJ	3-18	RJ689	996	128	15		311	12	120	1	800
1	7 7/8	"	NEW	2-10 1-11	25691	1471	475	36 3/4		431	20	60	3	1100
2	7 7/8	"	J44	2-12 1-11	BT2-0	2816	1345	70 1/2	107 1/2	841	25	50	1 1/2	900
3	7 7/8	"	N55R	2-11 1-12	23077	3284	468	48 1/2	155 3/4	641	30	50	2 1/2	900
4	7 7/8	"	N55R	2-12 1-11	25046	3613	329	42 1/2	198 1/2	241	30	55	1 1/2	850
5	7 7/8	"	J44	2-12 1-11	BK334	4272	659	85 1/2	293 3/4	841	30	55	7/8	1000
6	7 7/8	"	N55R	3-12	23073	4515	243	20 1/2	323	221	30	55		1100

d. Mud Report

(1) Surface Hole - 12 1/2"

1500# Gel, 800# Soda Ash, 200# Sodium
Bicarb, 300# Caustic, 150# Peltex

(2) Main Hole - 7 7/8"

25100# Gel, 4200# Soda Ash, 700# Caustic
Soda, 30 sxs Sawdust, 950# Peltex,
50# CMC, 200# Cellox, 8 sxs kwik seal.

e. Deviation Record

3/4 ° @	126	1/2 ° @	241	1/2 ° @	363
1/2 ° @	476	1 ° @	576	3/4 ° @	689
3/4 ° @	782	1 ° @	876	3/4 ° @	939
2 1/8 ° @	1190	3 ° @	1378	3 1/8 ° @	1595
2 1/4 ° @	1877	1 1/4 ° @	2222	1 1/4 ° @	2694
2 1/4 ° @	3102	1 1/2 ° @	3613	7/8 ° @	4161

f. Abandonment Plugs:

Plug No. 1 - 4415 to 4515, 38 sxs of cement

Plug No. 2 - 3000 to 3100, 48 sxs of cement

+ 2% CaCl_2 . Found top @ 3005

Plug No. 3 - 950 to 1050, 65 sxs of cement

+ 2% CaCl_2 . Found top @ 935. Cut casing

2' below ground placed 5 sxs cement in top.

Welded plate on top with well sign.

g. Lost Circulation Zones

No zones where circulation was lost completely. Gradually lost fluid at about 2000' K.B.; this was while drilling with water. No remedial measures taken until mudded up when very small amounts of sawdust

and Bkik seal stopped the loss.
Estimated about 900 bbls of fluid was
lost to the formation.

h. Report on Blowouts

No blow outs occurred.

IV. LOGS

Ran Schlumberger logs on March 31, 1971
as follows:

Dual Induction Latrolog - 992' to 4509'

Borehole Compensated
Sonic Log - 992' to 4510'

(Ran Gamma Ray on this log from 150' -992')

Formation Density Log - 992' to 4511'

V. ANALYSIS

a. Core analysis

No cores cut

b. Water analysis

Attached, Pages 12 and 13

c. Gas analysis

N/A

d. Oil analysis

N/A

VI. COMPLETION SUMMARY

a. Tubing Record

Nil tubing

b. Perforation Record

Nil perforations

c. Cementation Record

Plug No. 1 4415 to 4515 - 38 sxs cement.

Down at 9:00 P.M., April 2, 1971.

Plug No. 2 3000 to 3100 - 48 sxs cement

+ 2% CaCl_2 . Down at 9:45 P.M. Found @

3005 at 5:15 A.M. April 3, 1971.



CORE LABORATORIES - CANADA LTD.

PETROLEUM RESERVOIR ENGINEERING

WATER ANALYSIS

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File 933-1483 Page 1 of 2

Company Buttes Resources Canada, Ltd.

Well Buttes et al Blackwater Lake I-54A K.B. 794' Grd. 782'
64 33°43.88 N.L.

Location 122 39°40.18 W.L. Field Blackwater Lake Area Province N.W.T.

Formation Bear Rock Interval _____

Sampled from DST #1 (Top of Tool) by Halliburton Services

Date sampled Apr. 1/71 Date analysed Apr. 21/71 Analyst LK

Recovery Mud

_____ Mud type _____ Water cushion _____

Resistivity 0.559 Ohm-meters @ 68 of _____

Specific gravity 1.0162 @ 60°F

pH 9.30 H₂S Absent

Refractive Index 1.336 @ 68°F

Total Solids:

Calculated 10,891 mg/liter

By evaporation @ 110°C - mg/liter

By evaporation @ 180°C - mg/liter

At ignition - mg/liter

MILLIGRAMS PER LITER

Na + K	Ca	Mg	Fe	Ba	Br	I	Cl	HCO ₃	SO ₄	CO ₃	OH
3084	387	8	Trace	Abs.	-	-	29	185	7150	48	Nil

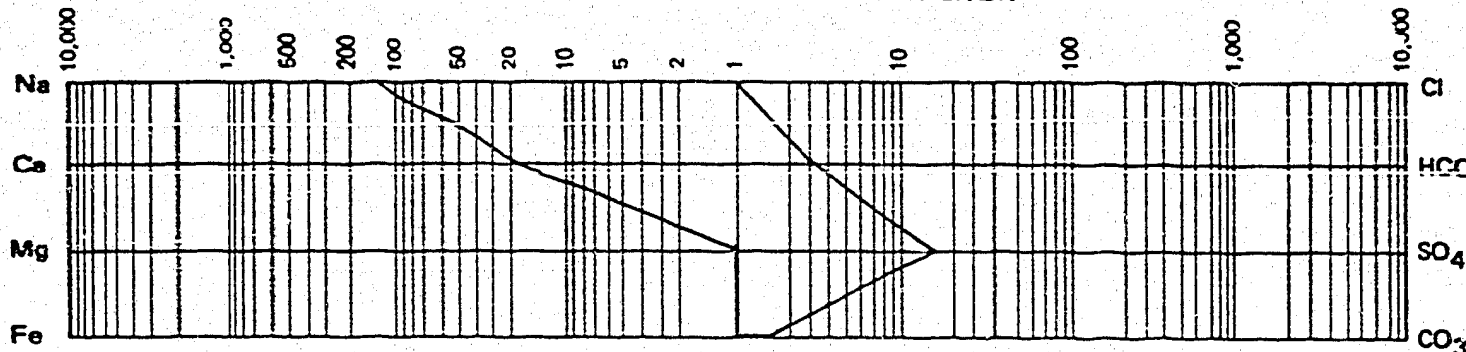
PER CENT CALCULATED SOLIDS

28.3	3.6	.1	Trace	Abs.	-	-	.3	1.7	65.7	.4	.0
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MEQ PER LITER

134.1	19.3	.7	Trace	Abs.	-	-	.8	3.0	148.7	1.6	.0
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LOGARITHMIC PATTERN MEQ PER LITER



7182. 3084.0



CORE LABORATORIES - CANADA LTD.

PETROLEUM RESERVOIR ENGINEERING

WATER ANALYSIS

Page 13



File 933-1483 Page 2 of 2

Company Buttes Resources Canada, Ltd.

Well Buttes et al Blackwater Lake I-54A K.B. 794' Grd. 782'
64 33'43.88 N.L.

Location 122 39'40.18 W.L. Field Blackwater Lake Area Province N.W.T.

Formation Bear Rock Interval 1700' - 1765'

Sampled from DST #2 (433' Above Tool) by Halliburton Services

Date sampled Apr. 2/71 Date analysed Apr. 21/71 Analyst JK

Recovery Salt Water and Mud

Mud type _____ Water cushion _____

Resistivity 0.915 Ohm-meters @ 63 of

Specific gravity 1.0083 @ 60°F

pH 7.4 H₂S Absent

Refractive Index 1.333 @ 63°F

Total Solids:

Calculated 10,520 mg/liter

By evaporation @ 110°C - mg/liter

By evaporation @ 180°C - mg/liter

At ignition - mg/liter

MILLIGRAMS PER LITER

Na + K	Ca	Mg	Fe	Ba	Br	I	Cl	HCO ₃	SO ₄	CO ₃	OH
2682	635	76	Trace	Abs.	-	-	935	142	6050	Nil	Nil

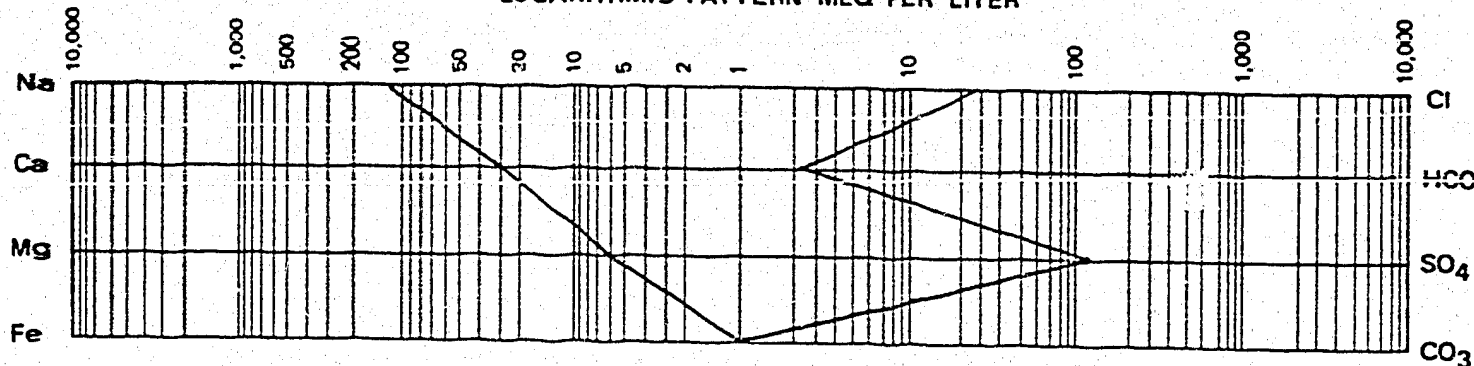
PER CENT CALCULATED SOLIDS

25.5	6.0	.7	Trace	Abs.	-	-	8.9	1.3	57.5	.0	.0
------	-----	----	-------	------	---	---	-----	-----	------	----	----

MEQ PER LITER

116.6	31.7	6.2	Trace	Abs.	-	-	26.4	2.3	125.8	.0	.0
-------	------	-----	-------	------	---	---	------	-----	-------	----	----

LOGARITHMIC PATTERN MEQ PER LITER



7435. 2682.0

Plug No. 3 - 950 to 1050, 65 sxs cement

+ 2% CaCl_2 . Down at 6:15 A.M. Found at 935 at 2:00 P.M., April 3, 1971.

d. Acidizing and
Fracturing Record

No stimulation performed

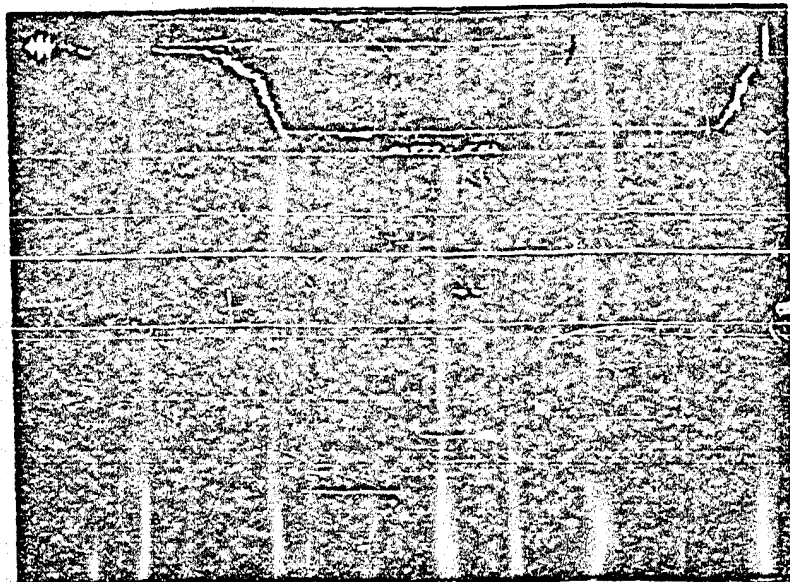
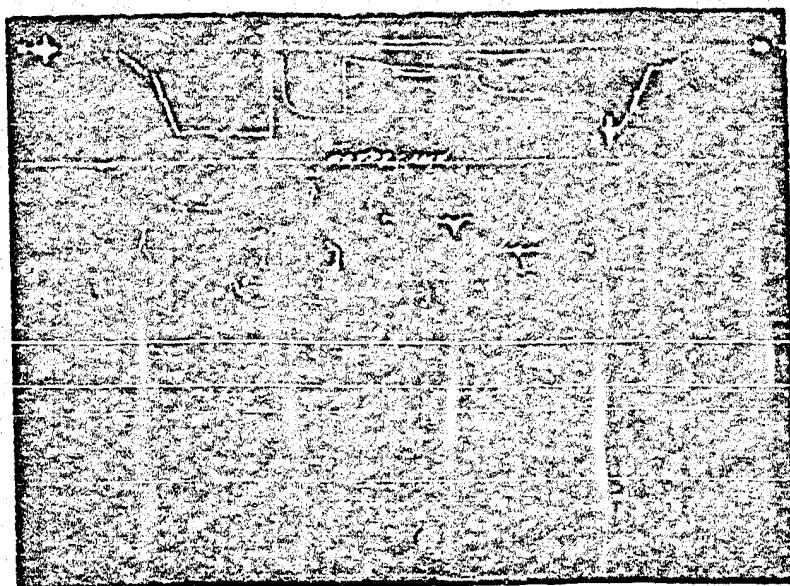
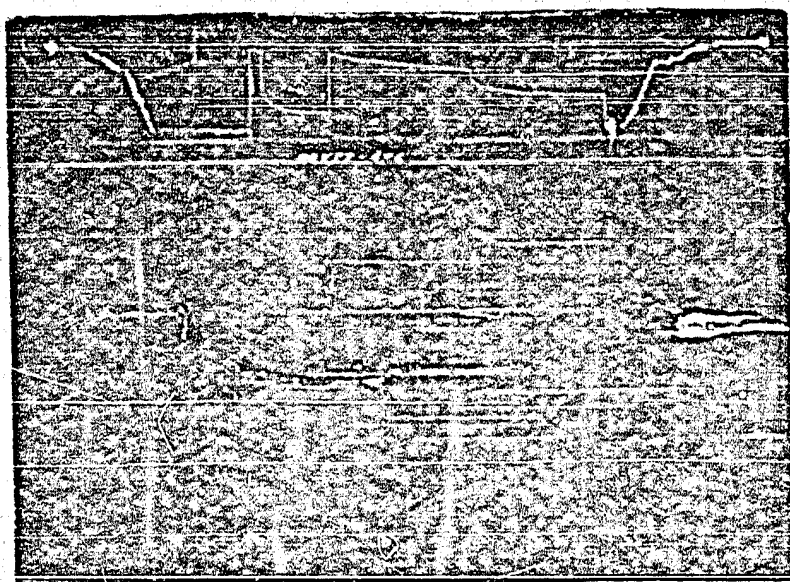
e. Book Pressure and
Production Tests

Well unproductive, no tests.

PRESSURE

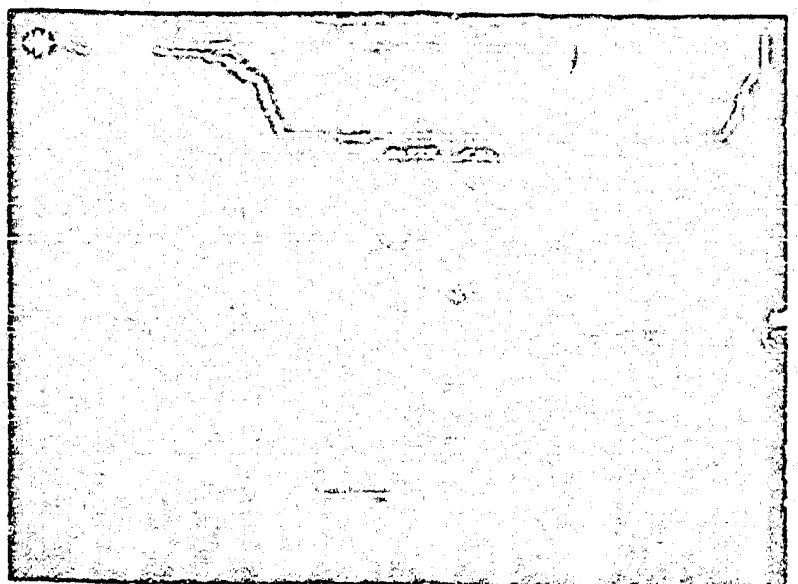
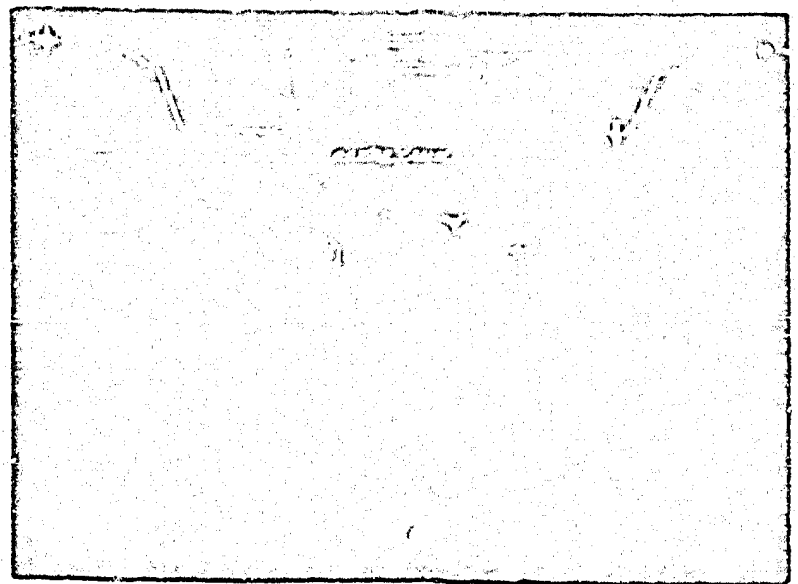
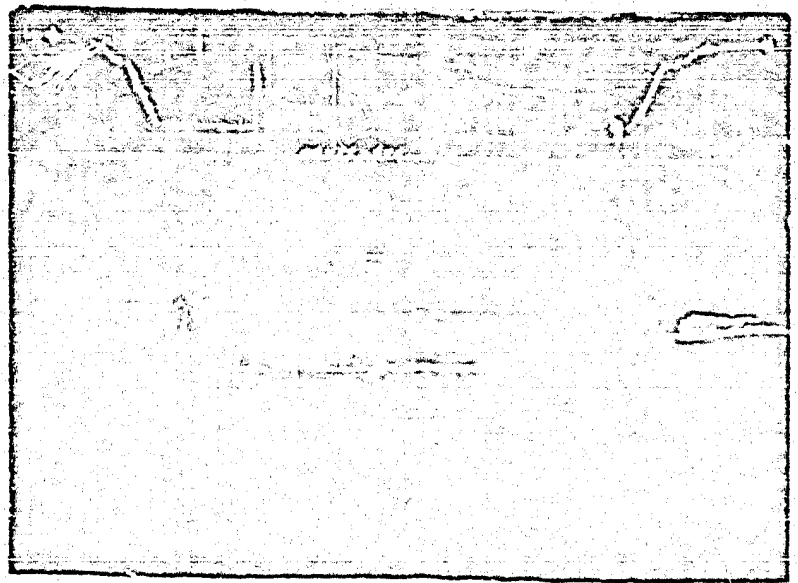
TIME

Each horizontal line
equal to 1000 psi



TIME

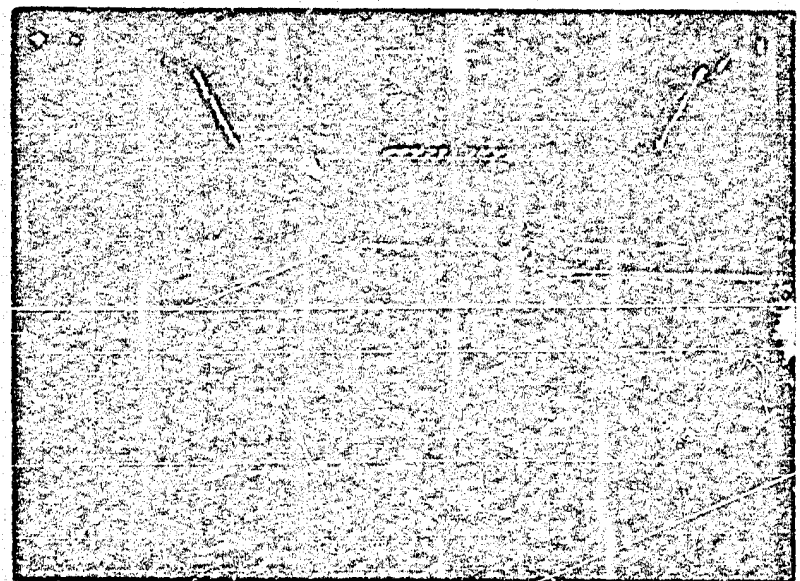
For the purpose of this
study, the following



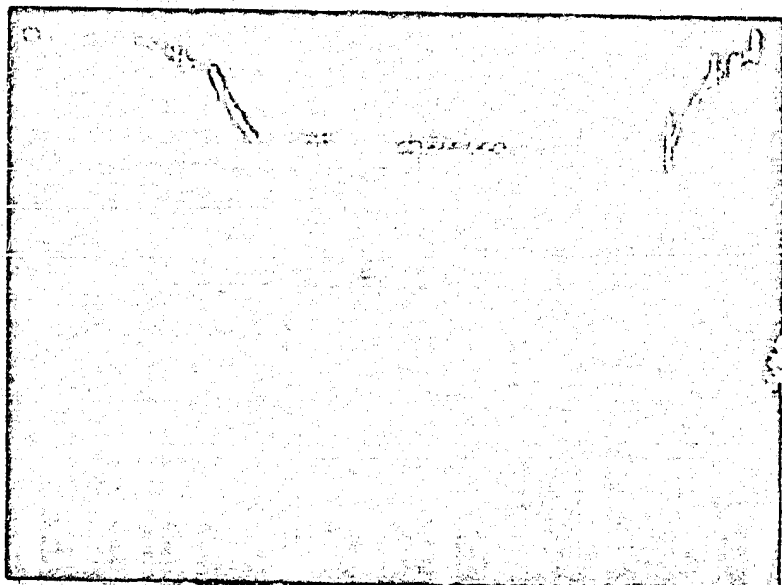
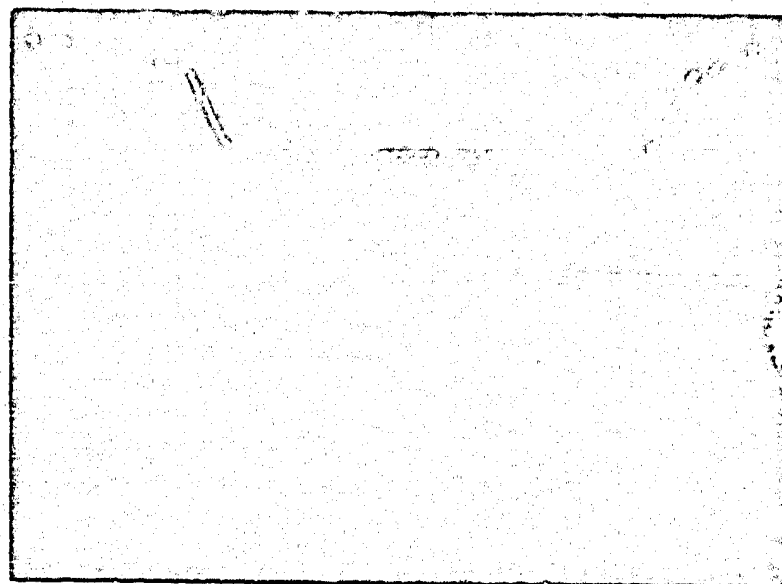
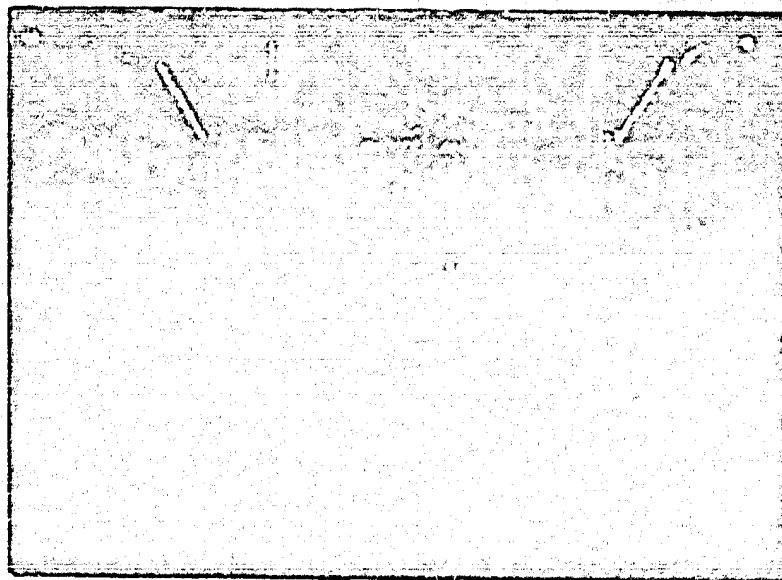
PRESSURE

TIME

Each horizontal line
equal to 1000 psi



the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion. The number of people aged 65 and over is expected to increase from 200 million to 400 million. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion.



BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

REMARKS	Time		
	Start	Stop	Interval

Tour — Midnight - 8 a.m.		Specify actual hours worked		Hrs.
Driller	H. FLETT	12		
Derrick	E. ARKSEY	12		
Floor	R. LIZOTTE	8		
Floor	K. MCGREGOR	8		
Floor				
Motor				
Mechanic	Suppling	90		
Extra	K. 12409 12508			
Injuries:				
Fires:				
Tour — 8 a.m. to 4 p.m.				
Specify actual hours worked				
Driller	J. JORDAN	100		
Derrick	E. ARKSEY	4		
Floor	D. SIDOROV	10		
Floor	W. RIEPHER	10		
Floor				
Motor				
Mechanic				
Extra				
Injuries:				
Fires:	3 TO DAY (BUNK HOUSE)			
Tour — 4 p.m. to Midnight				
Specify actual hours worked				
Driller	B. HUBER	13		
Derrick	J. A. WILKINSON	10		
Floor	T. E. WILKINSON	13		
Floor	D. CURTIS	12		
Floor				
Motor				
Mechanic				
Extra				
Injuries:				
Fires:				

From		Footage		To	Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands				
No.	Size	Type	Size	Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	Gals.	Bbls.	Tons	Singles							
MUD																		At Surveys Degree	MOTOR HOURS	Next Oil Change			
WEIGHT																		1					
VISCOSITY																		2					
GEL																		3					
PUMPS																		4					
No. 1 Pressure																		5					
Model S.P.M.																		Slip		Feet Left on Spool	Next Slip		
No. 2 Pressure																		Slip		Feet Left on Spool	Next Slip		
Model S.P.M.																		Slip		Feet Left on Spool	Next Slip		
Liner Size																		Slip		Feet Left on Spool	Next Slip		
General																		Slip		Feet Left on Spool	Next Slip		
W.L.																		F.C.		pH.			
From		Footage		To	Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands				
No.	Size	Type	Size	Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	Gals.	Bbls.	Tons	Singles							
MUD																		At Surveys Degree	MOTOR HOURS	Next Oil Change			
WEIGHT																		1					
VISCOSITY																		2					
GEL																		3					
PUMPS																		4					
No. 1 Pressure																		5					
Model S.P.M.																		Slip		Feet Left on Spool	Next Slip		
No. 2 Pressure																		Slip		Feet Left on Spool	Next Slip		
Model S.P.M.																		Slip		Feet Left on Spool	Next Slip		
Liner Size																		Slip		Feet Left on Spool	Next Slip		
General																		Slip		Feet Left on Spool	Next Slip		
W.L.																		F.C.		pH.			
From		Footage		To	Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands				
No.	Size	Type	Size	Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	Gals.	Bbls.	Tons	Singles							
MUD																		At Surveys Degree	MOTOR HOURS	Next Oil Change			
WEIGHT																		1					
VISCOSITY																		2					
GEL																		3					
PUMPS																		4					
No. 1 Pressure																		5					
Model S.P.M.																		Slip		Feet Left on Spool	Next Slip		
No. 2 Pressure																		Slip		Feet Left on Spool	Next Slip		
Model S.P.M.																		Slip		Feet Left on Spool	Next Slip		
Liner Size																		Slip		Feet Left on Spool	Next Slip		
General																		Slip		Feet Left on Spool	Next Slip		
W.L.																		F.C.		pH.			

Company Time		Cont'r Time	
W.O.C.		1200 430 4 1/2	
Run in FEEL plug 3005		430	
HOIST PIPE		530 1	
Rig to 2. Run plug 3		530 6 1/2 3/4	
HOIST PIPE. Lay down pipe		6 1/2 800 1 3/4	
Rig Serv. Lay down Pipe		8.00 9.00 1	
W.O.C.		9.00 1.30 4 1/2	
Run in To Feel Plug		1.30 2.00 1/2	
Lay down Pipe		2.00 3.00 1	
TEAR OUT		3.00 4.00 1	
TEAR OUT.		9.00 AM 10.00 PM.	
Rig Released @ 6 PM		April 3/7	
W.O.C.		1200 430 4 1/2	

Totco Ring on Bit No. _____ D.P. Gaugered Date _____ Results _____ From Pipe Rack _____ Total Contractor Time _____ Hrs. Toolpusher _____
 B.O.P. Test-Operated _____ Time _____ Results _____ Total Company Time _____ Hrs. Approved by _____

RIG No. 2 LOCATION BUTTER FT AL BLACKWATER AREA _____ DATE April 2 19 21

Tour — Midnight — 8 a.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time		
Specify actual hours worked Hrs.												No. O.D. I.D. Wgt.				Gals.		Bbls.		Tons									
Driller <u>H. FLETT</u>	<u>8</u>	<u>F.D.</u>										<u>16 1/4 0%</u>										<u>TESTING</u>		<u>1200</u>	<u>300</u>	<u>3</u>			
Derrick <u>E. ARKSEN</u>	<u>8</u>																					<u>Hoist TEST # 2</u>		<u>300</u>	<u>515</u>	<u>2 1/4</u>			
Floor <u>R. LIZOTT</u>	<u>8</u>																					<u>W.D.O.</u>		<u>515</u>	<u>800</u>	<u>2 3/4</u>			
Floor <u>MAC GREGOR</u>	<u>8</u>																												
Floor																													
Motor																													
Mechanic																													
Extra																													
Injuries:																													
Fires:																													
Tour — 8 a.m. to 4 p.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time		
Specify actual hours worked Hrs.												No. O.D. I.D. Wgt.				Gals.		Bbls.		Tons									
Driller <u>J. J. J. J.</u>	<u>8</u>																					<u>W.D.O. Rig Serv.</u>		<u>8.00</u>	<u>12.00</u>	<u>4</u>			
Derrick <u>E. ARKSEN</u>	<u>8</u>																					<u>Lay down Testing Tool</u>		<u>12.00</u>	<u>1.30</u>	<u>1 1/2</u>			
Floor <u>D. STORRYN</u>	<u>8</u>																					<u>Lay down D.C.</u>		<u>1.30</u>	<u>3.30</u>	<u>2</u>			
Floor <u>W. R. EMER</u>	<u>8</u>																					<u>Run in open End</u>		<u>3.30</u>	<u>4.00</u>	<u>1/2</u>			
Floor																													
Motor																													
Mechanic																													
Extra																													
Injuries:																													
Fires:																													
Tour — 4 p.m. to Midnight		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time		
Specify actual hours worked Hrs.												No. O.D. I.D. Wgt.				Gals.		Bbls.		Tons									
Driller <u>B. HUBER</u>	<u>8</u>																					<u>Run in open End</u>		<u>4.00</u>					
Derrick <u>I. ARKSEN</u>	<u>8</u>																					<u>PICK UP 17 SINGLES</u>			<u>7.30</u>	<u>3 1/2</u>			
Floor <u>T. F. LIZOTT</u>	<u>8</u>																					<u>CIRCE</u>		<u>7.30</u>	<u>8.00</u>	<u>1/2</u>			
Floor <u>D. C. LIZOTT</u>	<u>8</u>																					<u>CEMENTING RUN PLUG NO 1</u>		<u>8.00</u>	<u>9.00</u>	<u>1</u>			
Floor																						<u>PULL UP TO 3100</u>		<u>9.00</u>	<u>9.30</u>	<u>1/2</u>			
Motor																						<u>RUN PLUG NO 2</u>		<u>9.30</u>	<u>9.45</u>	<u>1/4</u>			
Mechanic																						<u>LAY DOWN PIPE & CIRCE</u>		<u>9.45</u>	<u>12.00</u>	<u>2 1/4</u>			
Extra																						<u>Plug #2 3000 to 3100</u>							
Injuries:																						<u>48 sks of cement + 2% C.C.</u>							
Fires:																						<u>Plug down @ 9:45 P.M.</u>							

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____ Total Contractor Time _____ Hrs. Toolpusher H. Jandl.

B.O.P. Test-Operated _____ Time _____ Results _____ Total Company Time _____ Hrs. Approved by _____

DAILY DRILLING REPORT

BOARD DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTTE ET AL BLACKWATER TCH AREA DATE April 1 1971

Tour — Midnight - 3 a.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.) DRILL COLLARS FUEL WATER COAL Stands										REMARKS		Time				
Specify actual hours worked Hrs.		No. O.D. I.D. Wgt. Gals. Bbls. Tons												Start	Stop	Interval		
Driller H. FLETT	8	16 6 1/2 2 1/2										16		MAKE UP TOOL		1200		
Derrick F. ARSEY	8											Singles		RUN			500	
Floor R. LIZOTTE	8											D. Collars		RIG UP TESTING HEAD			500	
Floor K. MAC GREGOR	8											Other Ft.		SET PAINTER				
												C.B. Ft.		TEST			500	
												Subs. Ft.						
												Ft. Up On Kelly						
												TOTAL						
												Slip Feet of Cut Feet Left on Spool Next Slip						
												MOTOR HOURS						
												At Surveys Degree						
												Additives						
												MUD						
												WEIGHT						
												VISCOSITY						
												GEL						
												No. 1 Pressure						
												Model S.P.M.						
												Liner Size						
												No. 2 Pressure						
												Model S.P.M.						
												Liner Size						
												General						
												W.L. F.C. pH.						
Tour — 3 a.m. to 4 p.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.) DRILL COLLARS FUEL WATER COAL Stands										REMARKS		Time				
Specify actual hours worked Hrs.		No. O.D. I.D. Wgt. Gals. Bbls. Tons												Start	Stop	Interval		
Driller J. J. J. J.	8	16 6 1/2 2 1/2										16		Testing		800	1100	3
Derrick K. F. J. J.	8											Singles		Hoist Test		1100	1230	1 1/2
Floor D. ST. O. G. R. Y. N.	8											D. Collars		Break out Tool		1230	1300	1
Floor W. R. E. I. M. P. R.	8											Other Ft.		W.O.O.		1300	3300	2
												C.B. Ft.		Break down Testing Tool		3300	4000	2
												Subs. Ft.						
												Ft. Up On Kelly						
												TOTAL						
												Slip Feet of Cut Feet Left on Spool Next Slip						
												MOTOR HOURS						
												At Surveys Degree						
												Additives						
												MUD						
												WEIGHT						
												VISCOSITY						
												GEL						
												No. 1 Pressure						
												Model S.P.M.						
												Liner Size						
												No. 2 Pressure						
												Model S.P.M.						
												Liner Size						
												General						
												W.L. F.C. pH.						
Tour — 4 p.m. to Midnight		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.) DRILL COLLARS FUEL WATER COAL Stands										REMARKS		Time				
Specify actual hours worked Hrs.		No. O.D. I.D. Wgt. Gals. Bbls. Tons												Start	Stop	Interval		
Driller B. H. J. J.	8	60 16 1/4 3 1/2										19		MAKE UP TEST TOOL.		400	700	3
Derrick A. J. J. J.	8											Singles		RUN IN TEST.		700	845	1 1/2
Floor T. K. Y. N. E. V. I. S. J. O. N.	8											D. Collars		HEAD UP + SET TOOL.		845	900	2
Floor O. B. U. R. J. S.	8											Other Ft.		TESTING. NO 2.		900	1200	2 1/2
												C.B. Ft.						
												Subs. Ft.						
												Ft. Up On Kelly						
												TOTAL						
												Slip Feet of Cut Feet Left on Spool Next Slip						
												MOTOR HOURS						
												At Surveys Degree						
												Additives						
												MUD						
												WEIGHT						
												VISCOSITY						
												GEL						
												No. 1 Pressure						
												Model S.P.M.						
												Liner Size						
												No. 2 Pressure						
												Model S.P.M.						
												Liner Size						
												General						
												W.L. F.C. pH.						

Tool Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. Toolpusher H. J. J.
 Total Company Time _____ Hrs. Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTTS - AL BLANK-WATER 124 AREA DATE MARCH 31 1976

Tour — Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	REMARKS	Start	Stop	Interval		
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons							
Driller	H. FL - T	4515		4515			16	4 1/2						64	Hoist to Log	1200	1300	1		
Derrick	E. ARKSEY													1	RIG UP LOGGER	1000	1300	3		
Floor	R. LIZETTE														Log	1300	1300	0		
Floor	K. MAC GREGOR																			
Motor																				
Mechanic																				
Extra																				
Injuries:																				
Fires:																				
Tour — 8 a.m. to 4 p.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands						
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons							
Driller	J. TARDI					100	16	6 7/8		2 1/8				64	Logg Rig Seril.	800	1030	2 1/2		
Derrick	K. FICHT													1	W. O. O.	1030	1230	2		
Floor	O. STOBRYN														Run in To Con Mud	1230	2000	1 1/2		
Floor	W. REIMER														Circ.	2000	4000	2		
Motor																				
Mechanic																				
Extra																				
Injuries:																				
Fires:																				
Tour — 4 p.m. to Midnight		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands						
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons							
Driller	B. HUBER					100	16	6 7/8		2 1/8				64	WAIT ON ORDERS. CIRC.	400	645	2 1/4		
Derrick	J. ANDERSON													1	PULL OUT	645	900	2 1/4		
Floor	T. K. VANDERSON														W. O. O.	900	1300	4		
Floor	D. CURTIS																			
Motor																				
Mechanic																				
Extra																				
Injuries:																				
Fires:																				

To/Co Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____ Total Contractor Time _____ Hrs. Toolpusher H. Jandell
B.O.P. Test-Operated _____ Time _____ Results _____ Total Company Time _____ Hrs. Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION OUTER ET AL. BLACKWATER EST. AREA DATE MARCH 30 1971

Tour — Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stand	REMARKS	Start	Time	Interval
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons					
Driller <u>H. FLETT</u>	8	4537	65	4402	7 1/2	18	16	6 1/2	2 1/2					62	DRILL 7 7/8 HOLE	1200	130	1 1/2
Derrick <u>E. ABRAHAM</u>	8													Singles	Rig SERVICE	130	145	15
Floor <u>R. LIZETTE</u>	8													D. Collars	DRILL 7 7/8 HOLE	145	800	6 1/2
Floor <u>M. GREGOR</u>	8													Other Ft.				
Floor														C.B. Ft.				
Motor														Subs. Ft.				
Mechanic														Ft. Up On Kelly				
Extra														TOTAL				
Injuries:														4402				
Fires:																		
Tour — 8 a.m. to 4 p.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stand				
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons					
Driller <u>J. Jandl</u>	8	4402	69	4471	7 3/4	98	16	6 1/2	2 3/8					63	DRILL 7 7/8 Hole	800	900	1
Derrick <u>K. EIGERT</u>	8													Singles	Rig Serv. Check shift	900		
Floor <u>D. STUGRYN</u>	8													D. Collars	one BOPS.		915	1/4
Floor <u>W. RIEMER</u>	8													Other Ft.	DRILL 7 7/8 Hole	915	400	6 1/2
Floor														C.B. Ft.				
Motor														Subs. Ft.				
Mechanic														Ft. Up On Kelly				
Extra														TOTAL				
Injuries:														4471				
Fires:																		
Tour — 4 p.m. to Midnight		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stand				
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons					
Driller <u>B. HERRER</u>	8	4471	44	4515.0	4 3/4	100	16	6 1/2	2 3/4					64	DRILL 7 7/8 Hole	400	430	1/2
Derrick <u>L. ANDERSEN</u>	8													Singles	Rig SERV.	430	445	1/4
Floor <u>T. EYMURSON</u>	8													D. Collars	DRILL 7 7/8 HOLE	445	900	4 1/4
Floor <u>D. CURTIS</u>	8													Other Ft.	CIRC. TO LOG.	900	1015	1 1/4
Floor														C.B. Ft.	PULL OUT TO LOG.	1015	1200	1 3/4
Motor														Subs. Ft.				
Mechanic														Ft. Up On Kelly				
Extra														TOTAL				
Injuries:														4515.0				
Fires:																		
Tour — 8 a.m. to 4 p.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stand				
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons					
Driller <u>B. HERRER</u>	8	4471	44	4515.0	4 3/4	100	16	6 1/2	2 3/4					64	DRILL 7 7/8 Hole	400	430	1/2
Derrick <u>L. ANDERSEN</u>	8													Singles	Rig SERV.	430	445	1/4
Floor <u>T. EYMURSON</u>	8													D. Collars	DRILL 7 7/8 HOLE	445	900	4 1/4
Floor <u>D. CURTIS</u>	8													Other Ft.	CIRC. TO LOG.	900	1015	1 1/4
Floor														C.B. Ft.	PULL OUT TO LOG.	1015	1200	1 3/4
Motor														Subs. Ft.				
Mechanic														Ft. Up On Kelly				
Extra														TOTAL				
Injuries:														4515.0				
Fires:																		

Totco Ring on Bit No.

D.P. Calipered Date

Results

From Pipe Rack

Total Contractor Time

Hrs.

Toolpusher

H. Jandl

B.O.P. Test-Operated

Time

Results

Total Company Time

Hrs.

Approved by

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTTES ET AL. BLACKWATER I 54 AREA I 54 DATE April 27, 1971

Tour — Midnight - 8 a.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.) DRILL COLLARS FUEL WATER COAL Stands										REMARKS			Time			
Specify actual hours worked Hrs.		No. O.D. I.D. Wgt. Gals. Bbls. Tons													Start	Stop	Interval	
Driller <u>H. FLETT</u>	8	4238	34	4272	7 3/4	16	6 1/4	2 3/8				60	RIG SERVICE			1200	1215	15
Derrick <u>ARKSEY</u>	8											Singles						
Floor <u>R. LIOTTE</u>	8											D. Collars						
Floor <u>R. MACGILGORD</u>	8											Other Ft.						
												C.B. Ft.						
												Subs. Ft.						
												Ft. Up On Kelly						
												TOTAL						
												Next Slip						
Driller <u>J. Jandh</u>	8	4272	12	4284	1 3/4	96	16	6 1/4	2 3/8			60	Rig Scr.			8.00	8.15	15
Derrick <u>K. Elgert</u>	8											Singles						
Floor <u>D. STOKRYN</u>	8											D. Collars						
Floor <u>W. RIEFNER</u>	8											Other Ft.						
												C.B. Ft.						
												Subs. Ft.						
												Ft. Up On Kelly						
												TOTAL						
												Next Slip						
Driller <u>B. HUBER</u>	8	4284	53	4337	7 1/4	98	16	6 1/4	2 3/8			61	DRLG.			400	415	15
Derrick <u>LANDERSEN</u>	8											Singles						
Floor <u>T. EYMANSON</u>	8											D. Collars						
Floor <u>D. CURTIS</u>	8											Other Ft.						
												C.B. Ft.						
												Subs. Ft.						
												Ft. Up On Kelly						
												TOTAL						
												Next Slip						

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____ Total Contractor Time _____ Hrs. Toolpusher H. Jandh
B.O.P. Test-Operated _____ Time _____ Results _____ Total Company Time _____ Hrs. Approved by _____

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

REMARKS

Time		
Start	Stop	Interval

[illegible][illegible][illegible]

Total Contractor Time _____ Mrs. Toolpusher H. Jones

Total Company Time _____ Hrs. Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTTE ET AL BLACK WATER 1 ST AREA N.W.T DATE MARCH 27 1971

Tour — Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	
Driller <u>H FLETT</u>	8	3844	52	3899	7 1/4	93	16	6 1/4	2 3/8					54
Derrick <u>E ARKSEY</u>	8													
Floor <u>R LIZOTTE</u>	8													
Floor <u>K MAC GREGOR</u>	8													
Floor														
Motor														
Mechanic														
Extra														

Injuries: R. Lizotte
2 CARTONS EXPORT A.
Fires: E. ARKSEY 1 CARTON
EXPORT A. CIG.

Tour — 8 a.m. to 4 p.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	
Driller <u>J. Jandh</u>	8	3899	72	3971	7 3/4	94	16	6 1/4	2 3/8					55
Derrick <u>K Elger</u>	8													
Floor <u>D STOBRYN</u>	8													
Floor <u>W. RIFMER</u>	8													
Floor														
Motor														
Mechanic														
Extra														

Injuries: K. Elger 1 CARTON
EXPORT A. CIG.

Tour — 4 p.m. to Midnight		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	
Driller <u>B. HUBER</u>	8	3971	82	4053	7 3/4	95	16	6 1/4	2 3/8					57
Derrick <u>J. ANDERSON</u>	8													
Floor <u>J. EYANURSON</u>	8													
Floor <u>D. CURTIS</u>	8													
Floor														
Motor														
Mechanic														
Extra														

Injuries: B. Huber 2 CARTON
EXPORT A.

Fires:

REMARKS	Time		
	Start	Stop	Interval
R.G. SERVICE	12:00	12:15	15
DRILL 7 3/8 HOLE	12:15	12:30	15
DRILL 7 3/8 HOLE	8:00	9:15	1 1/4
Rig Serv. Check shut	9:15		
offs and Bops.		9:30	1/4
DRILL 7 3/8 HOLE	9:30	4:00	6 1/2
DRILL 7 3/8 HOLE	4:00	4:15	1/4
Rig SERV.	4:15	4:30	1/4
DRILL 7 3/8 HOLE	4:30	12:00	7 1/2

Tetco Ring-on Bit No.

D.P. Caliper Date

Results

From Pipe Rack

Total Contractor Time

Hrs.

Toolpusher

B.O.P. Test-Operated

Time

Results

Total Company Time

Hrs.

Approved by

H. Jandh.

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

 BOARD DAY WORK RECORD
 NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

 RIG No. 2 LOCATION BUTTES ET AL BLANKWATER 154 AREA N.W.T. DATE MARCH 21 1971

Tour — Midnight - 8 a.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time		
Specify actual hours worked Hrs.		No. Size Type Size Jets Serial No. Weight R.P.M. Ft. Drilled Hrs. Feet Reamed Hrs. CONDITION		Gals.		Bbls.		Tons		D. Collars		Other Ft.		C.B. Ft.		Subs. Ft.		Ft. Up On Kelly		TOTAL		Start	Stop	Interval					
Driller <u>H. FLETCHER</u>	<u>8</u>	3550	55	3605	7 1/2	90	16	6 1/2	23																				
Derrick <u>E. ARSEY</u>	<u>8</u>	4	7 1/2	XSSR	7 1/2	25046	32	50	412																				
Floor <u>R. LIZ</u>	<u>8</u>								321																				
Floor <u>K. MAGGEE</u>	<u>8</u>																												
Floor																													
Motor																													
Mechanic																													
Extra																													
Injuries:																													
Fires:																													
Tour — 8 a.m. to 4 p.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time		
Specify actual hours worked Hrs.		No. Size Type Size Jets Serial No. Weight R.P.M. Ft. Drilled Hrs. Feet Reamed Hrs. CONDITION		Gals.		Bbls.		Tons		D. Collars		Other Ft.		C.B. Ft.		Subs. Ft.		Ft. Up On Kelly		TOTAL		Start	Stop	Interval					
Driller <u>J. JANDH</u>	<u>8</u>	3605	17	3622	2 1/2	90	16	6 1/2	23																				
Derrick <u>K. ELBERT</u>	<u>8</u>	4	7 1/2	XSSR	7 1/2	25046	30	60	329	423																			
Floor <u>D. STOBRYN</u>	<u>8</u>	5	7 1/2	XSSR	7 1/2	25046	30	60	329	423																			
Floor <u>M. RIEMER</u>	<u>8</u>																												
Floor																													
Motor																													
Mechanic																													
Extra																													
Injuries:																													
Fires:																													
Tour — 4 p.m. to Midnight		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time		
Specify actual hours worked Hrs.		No. Size Type Size Jets Serial No. Weight R.P.M. Ft. Drilled Hrs. Feet Reamed Hrs. CONDITION		Gals.		Bbls.		Tons		D. Collars		Other Ft.		C.B. Ft.		Subs. Ft.		Ft. Up On Kelly		TOTAL		Start	Stop	Interval					
Driller <u>B. HUBER</u>	<u>8</u>	3622	50	3696	7 1/2	90	16	6 1/2	23																				
Derrick <u>L. ANDERSEN</u>	<u>8</u>	5	7 1/2	XSSR	7 1/2	25046	30	55	73	94																			
Floor <u>T. EYMONDSON</u>	<u>8</u>																												
Floor <u>D. CURTIS</u>	<u>8</u>																												
Floor																													
Motor																													
Mechanic																													
Extra																													
Injuries:																													
Fires:																													

Totco Ring on Bit No.

D.P. Calipered Date

Results

From Pipe Rack

Total Contractor Time Hrs.

Toolpusher

B.O.P. Test-Operated

Time

Results

Total Company Time Hrs.

Approved by

 Injuries: D. CURTIS. 8hrs
 Swamping Time short
 on last cheque.

H. Jandh.

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD

DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTTES ET AL. BLACKWATER 154 AREA N.W.T. DATE MARCH 22 1971

Tour — Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	REMARKS	Start	Time Stop	Interval
Specify actual hours worked							No.	O.D.	I.D.	Wgt.		Gals.	Bbls.	Tons				
Driller <u>H. FLETT</u>	8	3025	65	3090	7	82	16	6 1/4	2 1/2					41	RIG SERVICE MIX MUD	1200	100	1
Derrick <u>K. ELBERT</u>	8														DRILL 7 7/8 HOLE.	100	800	7
Floor <u>R. LIZOTTE</u>	8																	
Floor <u>K. MAC GREGOR</u>	8																	
Floor																		
Motor																		
Mechanic																		
Extra																		
Injuries:																		
Fires:																		
Tour — 8 a.m. to 4 p.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands				
Specify actual hours worked							No.	O.D.	I.D.	Wgt.		Gals.	Bbls.	Tons				
Driller <u>J. JARDE</u>	8	3090	66	3156	7 1/2	84	16	6 1/4	2 1/2					42	Drill 7 7/8 Hole	800	9.15	3/4
Derrick <u>K. ELBERT</u>	8														Rig Serv. Check sh4T	9.15		
Floor <u>D. STOGRYN</u>	8														OTTS and Bops - Run Surveys	9.45	1/2	
Floor <u>N. RIEMER</u>	8														Drill 7 7/8 Hole	9.45	4.00	6 1/4
Floor																		
Motor																		
Mechanic																		
Extra																		
Injuries:																		
Fires:																		
Tour — 4 p.m. to Midnight		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands				
Specify actual hours worked							No.	O.D.	I.D.	Wgt.		Gals.	Bbls.	Tons				
Driller <u>B. HUBER</u>	8	3156	72	3228	7 3/4	86	16	6 1/4	2 1/2					44	Drill 7 7/8 Hole	400	500	1
Derrick <u>L. ANDERSEN</u>	8														Rig Serv.	500	5.25	3/4
Floor <u>T. ANDERSON</u>	8																	
Floor <u>D. COATIS</u>	8																	
Floor																		
Motor																		
Mechanic																		
Extra																		
Injuries:																		
Fires:																		

Totco Ring on Bit No.

D.P. Calipered Date

Results

From Pipe Rack

Total Contractor Time Hrs.

Toolpusher

B.O.P. Test-Operated

Time

Results

Total Company Time Hrs.

Approved by

A. Jandl

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTTES ET AL BLACKWATER I-54 AREA DATE March 21 1970

Tour — Midnight - 8 a.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time											
Specify actual hours worked		Hrs.		No. Size Type		Size Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		D. Collars		Other Ft.		C.B. Ft.		Subs. Ft.		Ft. Up On Kelly		TOTAL		Next Slip		
Driller	H. FLATT	8		2816	72	2880	72	80	16	64	23																											
Derrick	K. FLGERT	12		3	7 1/2	X 55 R	7 1/2	23077	30	50	72	7																										
Floor	R. LIZOTTE	8																																				
Floor	K. MACGREGOR	8																																				
Floor																																						
Motor																																						
Mechanic																																						
Extra																																						
Injuries:																																						
Fires:																																						
Tour — 8 a.m. to 4 p.m.		Hrs.		No. Size Type		Size Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		D. Collars		Other Ft.		C.B. Ft.		Subs. Ft.		Ft. Up On Kelly		TOTAL		Next Slip		
Driller	J. Jandh	8		888	87	2975	7 3/4	82	16	64	23																											
Derrick																																						
Floor	D. STOGRYN	8																																				
Floor	A. RIFMER	8																																				
Floor																																						
Motor																																						
Mechanic																																						
Extra																																						
Injuries:																																						
Fires:																																						
Tour — 4 p.m. to Midnight		Hrs.		No. Size Type		Size Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		D. Collars		Other Ft.		C.B. Ft.		Subs. Ft.		Ft. Up On Kelly		TOTAL		Next Slip		
Driller	B. HUBER	8		2975	50	3025	3 1/2	82	16	64	23																											
Derrick	J. ANDERSON	12																																				
Floor	T. F. YAN	3																																				
Floor	D. BARTIS	8																																				
Floor																																						
Motor																																						
Mechanic																																						
Extra																																						
Injuries:	D. CURTIS 4 hrs.																																					
Fires:	CAMP ATTENDANT.																																					
Totco Ring on Bit No.		D.P. Calipered Date		Results		From Pipe Rack		Total Contractor Time		Hrs.		Toolpusher		H. Jandh		Total Company Time		Hrs.		Approved by																		

Totco Ring on Bit No.

D.P. Calipered Date

Results

From Pipe Rack

Total Contractor Time

Hrs.

Toolpusher

B.O.P. Test-Operated

Time

Results

Total Company Time

Hrs.

Approved by

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION <i>Butte</i> AREA <i>2-4</i> DATE <i>12-13-71</i>		REMARKS		Time		
				Start	Stop	Interval
Tour — Midnight - 8 a.m. Specify actual hours worked Hrs.		From <i>2501</i> Footage <i>152</i> To <i>2653</i> Hrs. on Bottom <i>7 1/2</i> Wt. Drill String (1000 lbs.) <i>74</i>				
		DRILL COLLARS No. <i>2</i> O.D. <i>7 7/8</i> I.D. <i>5 1/4</i> Wgt. <i>25</i>				
		FUEL <i>1182</i> WATER <i>57</i> COAL				
		Stands <i>2254</i> Singles <i>31</i>				
Driller <i>H. FLETT</i> <i>8</i> Derrick <i>K. ELBERT</i> <i>12</i> Floor <i>R. LIZOTTE</i> <i>8</i> Floor <i>K. MACBREGAN</i> <i>8</i> Motor Mechanic Extra Injuries: Fires:		CONDITION D. Collars <i>464</i> <i>21</i> Other Ft. <i>38</i> <i>60</i> C.B. Ft. <i>60</i> Subs. Ft. Ft. Up On Kelly <i>9</i> TOTAL <i>2253</i>				
		MUD <i>12 Mn. 2 a.m. 4 a.m. 6 a.m.</i> Additives WEIGHT <i>2.5</i> <i>2.5</i> <i>2.5</i> <i>2.5</i> <i>2.5</i> VISCOSITY <i>28</i> <i>28</i> <i>28</i> <i>28</i> <i>28</i> GEL				
		PUMPS No. 1 <i>850</i> <i>850</i> <i>850</i> <i>850</i> Model <i>74</i> <i>74</i> <i>74</i> <i>74</i> S.P.M. <i>74</i> <i>74</i> <i>74</i> <i>74</i> No. 2 <i>5</i> <i>14</i> Model <i>5</i> <i>14</i> S.P.M. <i>5</i> <i>14</i> Liner Size <i>5</i> <i>14</i> General				
		W.L. <i>2653</i> F.C. <i>126</i> pH. <i>7 1/2</i>				
Tour — 8 a.m. to 4 p.m. Specify actual hours worked Hrs.		From <i>2653</i> Footage <i>126</i> To <i>2779</i> Hrs. on Bottom <i>7 1/2</i> Wt. Drill String (1000 lbs.) <i>78</i>				
		DRILL COLLARS No. <i>2</i> O.D. <i>7 7/8</i> I.D. <i>5 1/4</i> Wgt. <i>25</i>				
		FUEL <i>1694</i> WATER <i>1 1/4</i> COAL				
		Stands <i>2254</i> Singles <i>31</i>				
Driller <i>J. Jandl</i> <i>8</i> Derrick <i>D. STOBRYN</i> <i>8</i> Floor <i>W. RIEMER</i> <i>8</i> Motor Mechanic Extra Injuries: Fires:		CONDITION D. Collars <i>464</i> <i>21</i> Other Ft. <i>38</i> <i>60</i> C.B. Ft. <i>60</i> Subs. Ft. Ft. Up On Kelly <i>10</i> TOTAL <i>2779</i>				
		MUD <i>8 a.m. 10 a.m. 12 Noon 2 p.m.</i> Additives WEIGHT <i>5.5</i> <i>5.5</i> <i>5.5</i> <i>5.5</i> <i>5.5</i> VISCOSITY <i>28</i> <i>28</i> <i>28</i> <i>28</i> <i>28</i> GEL				
		PUMPS No. 1 <i>850</i> <i>850</i> <i>850</i> <i>850</i> Model <i>74</i> <i>74</i> <i>74</i> <i>74</i> S.P.M. <i>74</i> <i>74</i> <i>74</i> <i>74</i> No. 2 <i>5</i> <i>14</i> Model <i>5</i> <i>14</i> S.P.M. <i>5</i> <i>14</i> Liner Size <i>5</i> <i>14</i> General				
		W.L. <i>2779</i> F.C. <i>37</i> pH. <i>7 1/2</i>				
Tour — 4 p.m. to Midnight Specify actual hours worked Hrs.		From <i>2779</i> Footage <i>37</i> To <i>2816</i> Hrs. on Bottom <i>4</i> Wt. Drill String (1000 lbs.) <i>80</i>				
		DRILL COLLARS No. <i>2</i> O.D. <i>7 7/8</i> I.D. <i>5 1/4</i> Wgt. <i>25</i>				
		FUEL <i>1345</i> WATER <i>7 1/4</i> COAL				
		Stands <i>2254</i> Singles <i>31</i>				
Driller <i>B. HUBER</i> <i>8</i> Derrick <i>J. ANDERSEN</i> <i>12</i> Floor <i>F. FAYARDSON</i> <i>8</i> Floor <i>D. CURTIS</i> <i>12</i> Motor Mechanic Extra Injuries: <i>D. CURTIS. 4 Hrs.</i> Fires: <i>CAMP ATTENDANTS</i>		CONDITION D. Collars <i>464</i> <i>21</i> Other Ft. <i>38</i> <i>60</i> C.B. Ft. <i>60</i> Subs. Ft. Ft. Up On Kelly <i>5</i> TOTAL <i>2816</i>				
		MUD <i>4 p.m. 6 p.m. 8 p.m. 10 p.m.</i> Additives WEIGHT <i>8.4</i> <i>8.9</i> VISCOSITY <i>27</i> <i>27</i> GEL				
		PUMPS No. 1 <i>850</i> <i>850</i> <i>850</i> Model <i>72</i> S.P.M. <i>72</i> No. 2 <i>5</i> Model <i>5</i> S.P.M. <i>5</i> Liner Size <i>5</i> General <i>72/1A mud. with 52 lb. pump</i>				
		W.L. <i>2816</i> F.C. <i>37</i> pH.				

Totoc Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____
 Total Contractor Time _____ Hrs. Toolpusher *H. Jandl*
 Total Company Time _____ Hrs. Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTTER ST. & BLACKWATER AREA N.W.T. DATE MARCH 19 1971

Tour — Midnight - 8 a.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time		
Specify actual hours worked Hrs.		No. Size Type		Size Jts		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		D. Collars		Start Stop Interval					
Driller <u>H. FLEET</u>	<u>8</u>	<u>2466</u>	<u>142</u>	<u>2208</u>	<u>7 1/2</u>	<u>68</u>	<u>13 1/2</u>	<u>22</u>	<u>25</u>	<u>50</u>	<u>737</u>	<u>36</u>												<u>12:00</u>	<u>12:15</u>	<u>15</u>			
Derrick <u>E. ELBERT</u>	<u>12</u>	<u>2</u>	<u>7 3/8</u>	<u>JH</u>	<u>1-11</u>	<u>BT200</u>	<u>25</u>	<u>50</u>	<u>737</u>	<u>36</u>														<u>12:15</u>	<u>8:00</u>	<u>7 1/4</u>			
Floor <u>R. LIZOTTE</u>	<u>8</u>																												
Floor <u>K. MACGREGOR</u>	<u>8</u>																												
Motor																													
Mechanic																													
Extra																													
Injuries:																													
Fires:																													
Tour — 8 a.m. to 4 p.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time		
Specify actual hours worked Hrs.		No. Size Type		Size Jts		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		D. Collars		Start Stop Interval					
Driller <u>J. JORDAN</u>	<u>8</u>	<u>2208</u>	<u>155</u>	<u>2363</u>	<u>7 1/2</u>	<u>70</u>	<u>16 1/4</u>	<u>27</u>	<u>25</u>	<u>55</u>	<u>892</u>	<u>43 1/2</u>												<u>8:00</u>	<u>8:30</u>	<u>1/2</u>			
Derrick <u>D. STORRYN</u>	<u>8</u>	<u>2</u>	<u>7 3/8</u>	<u>JH</u>	<u>1-11</u>	<u>BT200</u>	<u>25</u>	<u>55</u>	<u>892</u>	<u>43 1/2</u>														<u>8:30</u>	<u>9:00</u>	<u>3</u>			
Floor <u>W. RIFTER</u>	<u>8</u>																							<u>9:00</u>	<u>4:00</u>	<u>7</u>			
Motor																													
Mechanic																													
Extra																													
Injuries:																													
Fires:																													
Tour — 4 p.m. to Midnight		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time		
Specify actual hours worked Hrs.		No. Size Type		Size Jts		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		D. Collars		Start Stop Interval					
Driller <u>B. HUBER</u>	<u>8</u>	<u>2363</u>	<u>138</u>	<u>2501</u>	<u>7 3/4</u>	<u>72</u>	<u>16 1/4</u>	<u>27</u>	<u>25</u>	<u>50</u>	<u>1030</u>	<u>51 1/4</u>												<u>4:00</u>	<u>4:45</u>	<u>3/4</u>			
Derrick <u>J. ANDERSEN</u>	<u>12</u>	<u>2</u>	<u>7 3/8</u>	<u>JH</u>	<u>1-12</u>	<u>BT200</u>	<u>25</u>	<u>50</u>	<u>1030</u>	<u>51 1/4</u>														<u>4:45</u>	<u>5:00</u>	<u>1/4</u>			
Floor <u>T. EYMUNDSON</u>	<u>8</u>																							<u>5:00</u>	<u>12:00</u>	<u>7</u>			
Floor <u>D. CUSTIS</u>	<u>12</u>																												
Motor																													
Mechanic																													
Extra																													
Injuries:																													
Fires:																													

Totco Ring on Bit No.

D.P. Calipered Date

Results

From Pipe Rack

Total Contractor Time Hrs.

Toolpusher

H. Jandell

B.O.P. Test-Operated

Time

Results

Total Company Time Hrs.

Approved by

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTTES ET AL. BLACKWATER T-54

AREA

DATE MARCH 18 1971

REMARKS

Tour — Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS			FUEL	WATER	COAL	Stands	Time	Interval	
Specify actual hours worked	Hrs.	No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION			Start
Driller H. FLETT	8	158	134	1715	7 1/2	60	16 6 1/2	23	35				1219	1200	100	1
Derrick K. ELBERT	12	2	7 3/8	J44	2-1 1/2	BT200	20	50	244	13 1/2			464.21	100	115	15
Floor R. LIZOTTE	8												23.60	115	800	6 3/4
Floor K. MACGREGOR	8															
MUD		12 Mn.	2 a.m.	4 a.m.	6 a.m.	Additives				At Surveys Degree	MOTOR HOURS	Next Oil Change				
WEIGHT		8.4	8.5	8.5	8.5					1595	30					
VISCOSITY		28	28	27	28											
GEL																
No. 1	Pres-sure	800	800	800	800											
Model	S.P.M.	74	74	74	74											
Liner Size		5 X 1 1/4														
No. 2	Pres-sure															
Model	S.P.M.															
Liner Size																
W.L.	F.C.	pH.														
PUMPS																
General																
Company Time Cont'r Time																
Rig Serv Check shut 8:00																
0 Pts and Bops																
Drill 7 1/2 Hole																
Survey																
Company Time Cont'r Time																
SERV. RIG																
DRILL																
WELD ON MUD pump																
Company Time Cont'r Time																
Total Contractor Time Hrs. Toolpusher H. Jandl																
Total Company Time Hrs. Approved by																

Totco Ring on Bit No.

D.P. Caliper Date

Results

From Pipe Rack

Total Contractor Time Hrs.

Toolpusher

B.C.P. Test-Operated

Time

Results

Total Company Time Hrs.

Approved by

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

REMARKS

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
B.O.P. Test-Operated _____ Time _____ Results _____

Toolpusher

Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTTE ET AL BLACKWATER 3-4 AREA

DATE March 16 1977

Tear — Midnight - 8 a.m.		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	Time		
					No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars	Start	Stop	Interval
Driller	H FLETT	8			999	80	1472	7 1/2	51	16	60	23					Drill 7 7/8 Hole	1200	400	400
Derrick	K ELBERT	8			1	7 7/8	XDV	2-10 1/2	2569	20	60	843	24				Rig Service	400	415	15
Floor	R LIZOTTE	8															Drill 7 7/8 Hole	415	800	3 1/2
Floor	K MACGREGOR	8																		
Motor																				
Mechanic																				
Extra																				
Injuries																				
Fires																				
Tear — 8 a.m. to 4 p.m.		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	Time		
					No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars	Start	Stop	Interval
Driller	J Jandl	8			1079	93	1172	7 1/2	52	16	60	23					Drill 7 7/8 Hole	800	930	1 1/2
Derrick	K ELBERT	4			1	7 7/8	XDV	2-10 1/2	2569	20	60	176	15 1/2				Rig Serv Check Shut-off	930		
Floor	D SIDGRYN	8															and Bops Survey	1000		1/2
Floor	D RIEMER	8															Drill 7 7/8 Hole	1000	400	6
Motor																				
Mechanic																				
Extra																				
Injuries																				
Fires																				
Tear — 4 p.m. to Midnight		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	Time		
					No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars	Start	Stop	Interval
Driller	B. Huber	8			1172	81	1253	5 3/4	54	16	60	124					PULL UP 3 STANDS	400		
Derrick	Huber	12			1	7 7/8	XDV	2-10 1/2	2569	20	60	257	3 1/2				CHANGE RAMS in B.O.P.	600	715	1 1/4
Floor	F. J. Jandl	8															DRLG	715	730	1 1/4
Floor	D. Curtis	8															ARM SERVICE	730	1200	4 1/4
Motor																				
Mechanic																				
Extra																				
Injuries																				
Fires																				

Totco Ring on Bit No.

D.P. Calipered Date

Results

From Pipe Rack

Total Contractor Time

Hrs.

Toolpusher H. Jandl

B.O.P. Test-Operated

Time

Results

Total Company Time

Hrs.

Approved by

BOARD DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

REMARKS

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____ Total Contractor Time _____ Hrs. Toolpusher H. J. Jangle
B.O.P. Test-Operated _____ Time _____ Results _____ Total Company Time _____ Hrs. Approved by _____

BOARD DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

REMARKS

Time		
Start	Stop	Interval

[illegible]

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. Toolpusher H. J. Jans
Total Company Time _____ Hrs. Approved by _____

BOARD DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

REMARKS

Time		
Start	Stop	Interval

DRILL 12" HOLE	12.00	130	1 1/2
HOLE BIT PLUS JET	1.30		
MEASURE OUT			
TAKE OUT 2 JET RUN IN		400	2 1/2
WORK ON PUMP	400	400	1/2
CLEAN TO BOTTOM 10 FT	430	500	1/2
DRILL 12" HOLE	500	800	3 00

[illegible][illegible]

Total Contractor Time _____ Hrs. Toolpusher A. Jandl
Total Company Time _____ Hrs. Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTTE ET AL. BLACK WATER T. 54 AREA 1 DATE March 11 1971

Tour — Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	REMARKS	Start	Stop	Interval
Specify actual hours worked		No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars				
Driller	H. FLETT	754	110	864	6 3/4	52	16	6 1/2	23					274.51	Drill 12 1/4 Hole	115	130	1 1/4
Derrick	E. A. S. S. Y	3A	12 1/4	OSC-3	3-15	26974	18 M	120	519	174				4.22	SURVEY RIG SERVICE	130	245	1 1/4
Floor	R. LIZOTTE													38.60	Work on Pump Motor	245	300	5 1/4
Floor	K. MACGREGOR													C.B. Ft.	Drill 12 1/4 Hole	300	430	1 1/2
Floor														Subs. Ft.	Work on Pump	430	500	70
Motor														Ft. Up On Kelly	Drill 12 1/4 Hole	500	530	30
Mechanic														TOTAL	Work on Pump	530	545	15
Extra														Next Slip	Drill 12 1/4 Hole	545	810	2 3/4
Injuries	A. L. Zotte 1 Carton Export. A.																	
Fires																		
Tour — 8 a.m. to 4 p.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	REMARKS	Start	Stop	Interval
Specify actual hours worked		No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars				
Driller	T. J. J. A. C. H.	864	39	903	4	52	16	6 1/2	23					374.01	Drill 12 1/4 Hole	8.00	8.30	30
Derrick	N. Campbell	2A	12 1/4	OSC-3	3-15	26974	10 M	120	523	23				31.65	Hoist Bit. Rig Serv.	8.30	9.30	1
Floor	D. STORRYN	4A	12 1/4	OSC-18	3-18	26974	10 M	130	35	35				46.21	Run in Bit	9.30	11.00	1 1/2
Floor	W. R. E. M. E. R.													38.60	Work on Pump	11.00	12.00	1
Floor														C.B. Ft.	Drill 12 1/4 Hole	12.00	12.15	15
Motor														Subs. Ft.	Survey Work on Pump	12.15	12.30	15
Mechanic														Ft. Up On Kelly	Drill 12 1/4 Hole	12.30	1.00	40
Extra														TOTAL	Work on Pump	1.00	1.15	15
Injuries	W. Reimer 2 CARTONS Export A.													9.03	Drill 12 1/4 Hole	1.15	4.00	2 3/4
Fires																		
Tour — 4 p.m. to Midnight		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	REMARKS	Start	Stop	Interval
Specify actual hours worked		No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars				
Driller	B. HUBER	903	54	957	7	53	16	6 1/2	23					468.27	Drill 12 1/4	4.00	4.15	15
Derrick	L. ANDERSON	4A	12 1/4	OSC-12	3-18	26974	12 M	150	89	102				15	RIG SERV	4.15	4.30	15
Floor	T. EYMONSON													46.21	Drill 12 1/4	4.30	8.30	4
Floor	D. CURTIS													38.60	SURVEY	8.30	8.45	15
Floor														C.B. Ft.	PUMP PIT	8.45	9.15	30
Motor														Subs. Ft.	Drill 12 1/4	9.15	12.00	2 3/4
Mechanic														Ft. Up On Kelly				
Extra														TOTAL				
Injuries														Next Slip				
Fires																		
Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____		B.O.P. Test-Operated _____ Time _____ Results _____		Total Contractor Time _____ Hrs. _____ Toolpusher <u>A. Jarnell</u>		Total Company Time _____ Hrs. _____ Approved by _____												

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTTES ET. AL. BLACK WATER 324 AREA _____ DATE MARCH 4 1971

Tour — 8 a.m. to 4 p.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.) DRILL COLLARS FUEL WATER COAL Stands															REMARKS			Time		
Specify actual hours worked Hrs.																				Start	Stop	Interval
Driller <u>H. FLETT</u>	8																<u>W.O.C.</u>			1200	500	
Derrick <u>F. Anderson</u>	8																					
Floor <u>R. L. WATTS</u>	8																					
Floor																						
Floor																						
Motor																						
Mechanic																						
Extra																						
Injuries:																						
Fires:																						
Tour — 8 a.m. to 4 p.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.) DRILL COLLARS FUEL WATER COAL Stands															Company Time			Cont'r Time		
Specify actual hours worked Hrs.																						
Driller <u>J. J. J. J.</u>	8																<u>W.O.C.</u>			8:00	12:00	4
Derrick <u>N. Campbell</u>	8																					
Floor <u>D. STOCKIN</u>	8																					
Floor <u>W. R. REMER</u>	8																					
Floor																						
Motor																						
Mechanic																						
Extra																						
Injuries:																						
Fires:																						
Tour — 4 p.m. to Midnight		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.) DRILL COLLARS FUEL WATER COAL Stands															Company Time			Cont'r Time		
Specify actual hours worked Hrs.																						
Driller <u>B. Kecker</u>	8																<u>W.O.C.</u>			4:00	11:30	7 1/2
Derrick <u>F. Anderson</u>	8																					
Floor <u>T. E. J. J.</u>	8																					
Floor <u>D. Carter</u>	8																					
Floor																						
Motor																						
Mechanic																						
Extra																						
Injuries:																						
Fires:																						

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____ Total Contractor Time _____ Hrs. Toolpusher H. J. J.
S.O.P. Test-Operated _____ Time _____ Results _____ Total Company Time _____ Hrs. Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. <u>2</u> LOCATION <u>BUTTES ET AL. BLACK WATER I-24</u> AREA <u>WT</u> DATE <u>MAY 7</u> 19 <u>44</u>		REMARKS		Time		
				Start	Stop	Interval
Tour — Midnight - 8 a.m. Specify actual hours worked						
Driller <u>H. Flett</u>	8					
Derrick <u>H. HASEL</u>	8					
Floor <u>H. LIZOTTE</u>	8					
Floor <u>P. PAUL</u>	8					
Floor						
Motor						
Mechanic						
Extra						
Injuries:						
Fires:						
Tour — 8 a.m. to 4 p.m. Specify actual hours worked						
Driller <u>J. Sandh</u>	8					
Derrick <u>H. Campbell</u>	8					
Floor <u>D. STOBRYN</u>	8					
Floor <u>W. R. FIMER</u>	8					
Floor						
Motor						
Mechanic						
Extra						
Injuries:						
Fires:						
Tour — 4 p.m. to Midnight Specify actual hours worked						
Driller <u>B. K. Weber</u>	8					
Derrick <u>I. Andersen</u>	8					
Floor <u>T. E. Ymanolson</u>	8					
Floor <u>D. Curtis</u>	8					
Floor						
Motor						
Mechanic						
Extra						
Injuries:						
Fires:						

Company Time _____ Cont'r Time _____
Total Contractor Time _____ Hrs. Toolpusher H. Jandell
Total Company Time _____ Hrs. Approved by _____

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

[illegible]

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____ Total Contractor Time _____ Hrs. Toolpusher 11/12
 B.O.P. Test-Operated _____ Time _____ Results _____ Total Company Time _____ Hrs. Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD

DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTLER ETAL BLACKWATER LAKE 154 AREA DATE MARCH 6 1971

Tour — Midnight - 8 a.m.		From Footage To										Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time																
Specify actual hours worked		Hrs.		No.		Size		Type		Size Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		D. Collars		Other Ft.		C.B. Ft.		Subs. Ft.		Ft. Up On Kelly		TOTAL		Start		Stop		Interval			
Driller	<u>H. FLETT</u>	<u>8</u>																																													
Derrick	<u>E. ARKSEY</u>	<u>8</u>																																													
Floor	<u>R. LIOTTE</u>	<u>8</u>																																													
Floor	<u>L. PAUL</u>	<u>8</u>																																													
Floor																																															
Motor																																															
Mechanic																																															
Extra																																															
Injuries																																															
Fires																																															
Tour — 8 a.m. to 4 p.m.		Specify actual hours worked		Hrs.		No.		Size		Type		Size Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		D. Collars		Other Ft.		C.B. Ft.		Subs. Ft.		Ft. Up On Kelly		TOTAL		Start		Stop		Interval	
Driller	<u>J. JANDL</u>	<u>13</u>																																													
Derrick	<u>N. CAMPBELL</u>	<u>13</u>																																													
Floor	<u>D. STOKRYN</u>	<u>13</u>																																													
Floor	<u>W. RIEMER</u>	<u>13</u>																																													
Floor																																															
Motor																																															
Mechanic																																															
Extra																																															
Injuries																																															
Fires																																															
Tour — 4 p.m. to Midnight		Specify actual hours worked		Hrs.		No.		Size		Type		Size Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		D. Collars		Other Ft.		C.B. Ft.		Subs. Ft.		Ft. Up On Kelly		TOTAL		Start		Stop		Interval	
Driller	<u>B. HUBBARD</u>	<u>8</u>																																													
Derrick	<u>J. ANDERSON</u>	<u>8</u>																																													
Floor	<u>J. HUBBARD</u>	<u>8</u>																																													
Floor	<u>P. CARTER</u>	<u>8</u>																																													
Floor																																															
Motor																																															
Mechanic																																															
Extra																																															
Injuries																																															
Fires																																															

Totco Ring on Bit No.

D.P. Calipered Date

Results

From Pipe Rack

Total Contractor Time

Toolpusher

B.O.P. Test-Operated

Time

Results

Total Company Time

Approved by

H. Jandl

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

REMARKS

Time		
Start	Stop	Interval

[illegible]

Total Contractor Time _____ Hrs. Toolpusher H. J. [Signature]
Total Company Time _____ Hrs. Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD

DAY WORK RECORD

NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTTES ETAL BLACKWATER LAKE 54 AREA DATE MARCH 4 1971

Tour - Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	REMARKS	Start	Stop	Interval
Specify actual hours worked	Hrs.	No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars				
Driller H. FLETCHER	8																	
Derrick E. ARKSEY	8																	
Floor R. LEO TIG	8																	
Floor L. PAGE	8																	
MOTOR																		
Mechanic																		
Extra																		
Injuries:																		
Fires:																		
Tour - 8 a.m. to 4 p.m.																		
Specify actual hours worked	Hrs.																	
Driller J. JARDIN	10																	
Derrick N. CAMPBELL	10																	
Floor D. STOKER	10																	
Floor W. REIMER	10																	
MOTOR																		
Mechanic																		
Extra																		
Injuries:																		
Fires:																		
Tour - 4 p.m. to Midnight																		
Specify actual hours worked	Hrs.																	
Driller B. NORTON	8																	
Derrick J. ANDERSON	8																	
Floor T. HENDERSON	8																	
Floor B. CLARK	8																	
MOTOR																		
Mechanic																		
Extra																		
Injuries:																		
Fires:																		

Company Time Cont'r Time
 TRUCKS ARRIVED ON 2:30 PM
 LEASE @ 2:30 PM

UNLOADED CEMENT & CASING
 PUT UP GUNPOWDER ON
 TRUCKS, UNLOADED DERRICKS
 GET DERRICK READY TO
 MOVE ON DRAWWORKS
 TRAILER, SET ON DERRICK 10:30 AM

Company Time Cont'r Time

Totco Ring on Bit No. D.P. Calibrated Date Results From Pipe Rack
 B.O.P. Test-Operated Time Results

Total Contractor Time Hrs. Toolpusher H. J. J. J.
 Total Company Time Hrs. Approved by

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

[illegible]

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____ Total Contractor Time _____ Hrs. Toolpusher _____
B.O.P. Test-Operated _____ Time _____ Results _____ Total Company Time _____ Hrs. Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION BUTLER ETAL. BLACKWATER 154 AREA _____ DATE MARCH 2, 1971

Tour — Midnight - 8 a.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands			REMARKS	Start	Time Stop	Interval
Specify actual hours worked Hrs.												No. O.D. I.D. Wgt.				Gals.		Bbls.		Tons								
Driller <u>H. FLETT</u>	<u>8</u>																								<u>WAIT ON DERRICK</u>			
Derrick <u>E. ARFISKY</u>	<u>8</u>																											
Floor <u>R. LIZOTTE</u>	<u>8</u>																											
Floor <u>L. PAUL</u>	<u>8</u>																											
Motor																												
Mechanic																												
Extra																												
Injuries:																												
Fires:																												
Tour — 8 a.m. to 4 p.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands			<u>WAIT ON DERRICK</u>			
Specify actual hours worked Hrs.												No. O.D. I.D. Wgt.				Gals.		Bbls.		Tons								
Driller <u>J. JANDL</u>	<u>8</u>																											
Derrick <u>N. CAMPBELL</u>	<u>8</u>																											
Floor <u>D. STODOLN</u>	<u>8</u>																											
Floor <u>W. KEMER</u>	<u>8</u>																											
Motor																												
Mechanic																												
Extra																												
Injuries:																												
Fires:																												
Tour — 4 p.m. to Midnight		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.)										DRILL COLLARS				FUEL		WATER		COAL		Stands			<u>WAIT ON DERRICK</u>			
Specify actual hours worked Hrs.												No. O.D. I.D. Wgt.				Gals.		Bbls.		Tons								
Driller <u>B. KESLER</u>	<u>8</u>																											
Derrick <u>T. Anderson</u>	<u>8</u>																											
Floor <u>T. KEMMERTON</u>	<u>8</u>																											
Floor <u>D. COATES</u>	<u>8</u>																											
Motor																												
Mechanic																												
Extra																												
Injuries:																												
Fires:																												

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____ Total Contractor Time _____ Hrs. Toolpusher H. Jernold
B.O.P. Test-Operated _____ Time _____ Results _____ Total Company Time _____ Hrs. Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION Butter at Al Blackwater I-54 AREA _____ DATE MARCH 1 1971

Tour — Midnight - 8 a.m.		From										Footage		To		Hrs. on Bottom		Wt. Drill String (1000 lbs.)		DRILL COLLARS				FUEL		WATER		COAL		Stands		REMARKS			Time						
Specify actual hours worked		Hrs.		No.		Size		Type		Size Jets		Serial No.		Weight		R.P.M.		Ft. Drilled		Hrs.		Feet Reamed		Hrs.		CONDITION		D. Collars		Singles			Start			Stop			Interval		
Driller	<u>H. H. H.</u>	8																												<u>WAIT ON DERRICK</u>											
Derrick	<u>E. H. H.</u>	8																																							
Floor	<u>LIZOTTE</u>	8																																							
Floor	<u>PAUL</u>	8																																							
Motor																																									
Mechanic																																									
Extra																																									
Injuries:																																									
Fires:																																									
Tour — 8 a.m. to 4 p.m.		Specify actual hours worked		Hrs.																										<u>WELD IN TRAILER</u>			<u>8:00</u>								
Driller	<u>J. J. J.</u>	8																												<u>REPAIRS INTO SUBSTATION</u>											
Derrick	<u>A. Campbell</u>	8																												<u>REMOVE STANDPIPE CLAMPS</u>											
Floor	<u>STOKER</u>	8																												<u>MISS EQUIPMENT FROM</u>											
Floor	<u>W. R. F.</u>	8																												<u>OLD DERRICK</u>			<u>6:00 10:00</u>								
Motor																																									
Mechanic																																									
Extra																																									
Injuries:																																									
Fires:																																									
Tour — 4 p.m. to Midnight		Specify actual hours worked		Hrs.																										<u>WAIT ON DERRICK</u>											
Driller	<u>B. H. H.</u>	8																																							
Derrick	<u>J. H. H.</u>	8																																							
Floor	<u>T. H. H.</u>	8																																							
Floor	<u>D. H. H.</u>	8																																							
Motor																																									
Mechanic																																									
Extra																																									
Injuries:																																									
Fires:																																									

Totco Ring on Bit No. _____ D.P. Caliper Date _____ Results _____ From Pipe Rack _____
B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs.
Total Company Time _____ Hrs.

Toolpusher H. J. J.
Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.RIG No. LOCATION *Buttes et al Blackwater, I-54A AREA* DATE *Feb 25* 19

Tour — Midnight - 8 a.m.		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	REMARKS	Start	Stop	Interval
No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	Gals.	Bbls.	Tons	Singles						
Driller	<i>H. GLETT</i>			<i>8</i>																	
Derrick	<i>E. ARKSEY</i>			<i>8</i>																	
Floor	<i>R. KROGER</i>			<i>8</i>																	
Floor	<i>L. PAUL</i>			<i>8</i>																	
Floor																					
Motor																					
Mechanic																					
Extra																					
Injuries:																					
Fires:																					
Tour — 8 a.m. to 4 p.m.		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	REMARKS	Start	Stop	Interval
No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	Gals.	Bbls.	Tons	Singles						
Driller	<i>S. JENSEN</i>			<i>8</i>																	
Derrick	<i>V. Campbell</i>			<i>8</i>																	
Floor	<i>D. STOKRYN</i>			<i>8</i>																	
Floor	<i>W. RIEMER</i>			<i>8</i>																	
Floor																					
Motor																					
Mechanic																					
Extra																					
Injuries:																					
Fires:																					
Tour — 4 p.m. to Midnight		Specify actual hours worked		Hrs.	From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands	REMARKS	Start	Stop	Interval
No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	Gals.	Bbls.	Tons	Singles						
Driller	<i>B. HUBER</i>			<i>8</i>																	
Derrick	<i>E. ADOLPHSEN</i>			<i>8</i>																	
Floor	<i>T. EYENDUNSON</i>			<i>8</i>																	
Floor	<i>D. CURTIS</i>			<i>8</i>																	
Floor																					
Motor																					
Mechanic																					
Extra																					
Injuries:																					
Fires:																					

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. Toolpusher *H. Jandell*
 Total Company Time _____ Hrs. Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

BOARD DAY WORK RECORD
NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

RIG No. 2 LOCATION Buttes et al Blackwater I-54 AREA DATE Feb 28 1971

Tour — Midnight - 8 a.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.) DRILL COLLARS FUEL WATER COAL Stands										REMARKS			Time		
Specify actual hours worked Hrs.																	
Driller <u>H. FLETT</u>	<u>8</u>														<u>WAIT ON DERRICK.</u>		
Derrick <u>E. HURLEY</u>	<u>8</u>																
Floor <u>R. LICOTTE</u>	<u>8</u>																
Floor <u>L. PAUL</u>	<u>8</u>																
Floor																	
Motor																	
Mechanic																	
Extra																	
Injuries:																	
Fires:																	
Tour — 8 a.m. to 4 p.m.		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.) DRILL COLLARS FUEL WATER COAL Stands										Company Time			Cont'r Time		
Specify actual hours worked Hrs.																	
Driller <u>J. Jank</u>	<u>8</u>														<u>WEAD & RE-MAKE 800</u> <u>FRONT DERRICK SUPPORT</u> <u>ON FRONT OF RIL</u> <u>REPAIR 671 GENERAL</u> <u>MOTORS (FLOOR MOTORS)</u> <u>DAMAGE RAD. LINE</u> <u>MANIFOLDS REPLACED. ETC.</u> <u>REMOVE BROKEN STANDS. 800 12</u>		
Derrick <u>N. Campbell</u>	<u>8</u>																
Floor <u>D. STOKRYN</u>	<u>8</u>																
Floor <u>W. RIEMER</u>	<u>8</u>																
Floor																	
Motor																	
Mechanic																	
Extra																	
Injuries:																	
Fires:																	
Tour — 4 p.m. to Midnight		From Footage To Hrs. on Bottom Wt. Drill String (1000 lbs.) DRILL COLLARS FUEL WATER COAL Stands										Company Time			Cont'r Time		
Specify actual hours worked Hrs.																	
Driller <u>B. HUBER</u>	<u>8</u>														<u>WAIT ON DERRICK</u>		
Derrick <u>I. ANDERSEN</u>	<u>8</u>																
Floor <u>T. EYMONSON</u>	<u>8</u>																
Floor <u>D. CURTIS</u>	<u>8</u>																
Floor																	
Motor																	
Mechanic																	
Extra																	
Injuries:																	
Fires:																	

Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
B.O.P. Test-Operated _____ Time _____ Results _____

Total Contractor Time _____ Hrs. Toolpusher H. Jandl
Total Company Time _____ Hrs. Approved by _____

TRI-CITY DRILLING LTD.

DAILY DRILLING REPORT

 BOARD DAY WORK RECORD
 NOTE—Please show FOOTAGE made while "Control Drilling" as well as HOURS.

 RIG No. 2 LOCATION Buttes et al Blackwater I-54 AREA _____ DATE Feb 27 1971

Tour — Midnight - 8 a.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	
Driller	Hrs.	No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars
H. FLETT	8													
Derrick														
Floor														
Floor														
Floor														
Floor														
Motor														
Mechanic														
Extra														
Injuries:														
Fires:														

Tour — 8 a.m. to 4 p.m.		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	
Driller	Hrs.	No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars
J. Janda	8													
Derrick														
Floor														
Floor														
Floor														
Floor														
Motor														
Mechanic														
Extra														
Injuries:														
Fires:														

Tour — 4 p.m. to Midnight		From	Footage	To	Hrs. on Bottom	Wt. Drill String (1000 lbs.)	DRILL COLLARS				FUEL	WATER	COAL	Stands
Specify actual hours worked							No.	O.D.	I.D.	Wgt.	Gals.	Bbls.	Tons	
Driller	Hrs.	No.	Size	Type	Size Jets	Serial No.	Weight	R.P.M.	Ft. Drilled	Hrs.	Feet Reamed	Hrs.	CONDITION	D. Collars
B. HUBER	4													
Derrick														
Floor														
Floor														
Floor														
Floor														
Motor														
Mechanic														
Extra														
Injuries:														
Fires:														

REMARKS	Time		
	Start	Stop	Interval
WAIT ON DERRICK			
REMOVED BOTTOM DERRICK 8 ⁰⁰			
SECTION, A-LEGS, ETC.			
TOOK DOWN RIG			
COURTAIN MOTORS & INSTALLED			
STEAM HEATER.			
MECHANIC: WROTE			
ARRIVED 2 100 PM.			
REMOVED DAMAGE PARTS			
WELD & REPAIR FRONT			
DERRICK SUPPORT. ETC.			
10 ⁰⁰ 14			
WAIT ON DERRICK			

 Totco Ring on Bit No. _____ D.P. Calipered Date _____ Results _____ From Pipe Rack _____
 B.O.P. Test-Operated _____ Time _____ Results _____

 Total Contractor Time _____ Hrs.
 Total Company Time _____ Hrs.

 Toolpusher H. Janda
 Approved by _____

BOARD DAY WORK RECORD

DATE Feb 26 1944

[illegible]

Total Contractor Time _____ Hrs. Toolpusher M. J. J. J.
Total Company Time _____ Hrs. Approved by _____