9229-C134-1E

FINAL GEOPHYSICAL OPERATIONS REPORT

GEOPHYSICAL OPERATIONS IDENTIFIER:	9229-C134-1E
LAND USE PERMIT NUMBER:	N97B819
REPORT TITLE:	SEISMIC ACQUISITION AND PROCESSING, NORMAN WELLS AREA, NORTHWEST TERRITORIES
TYPE OF OPERATION:	VIBROSEIS SEISMIC ACQUISITION AND PROCESSING
LOCATION OF OPERATION:	EXPLORATION LICENCE NO. 389 NORMAN WELLS AREA, NORTHWEST TERRITORIES, CANADA
DURATION OF OPERATION:	FEBRUARY 12 - MARCH 30, 1998
NAMES OF CONTRACTORS:	TRACE EXPLORATIONS LTD.
OPERATOR:	CASCADE OIL AND GAS LTD. (GREY WOLF EXPLORATION INC.)
INTEREST OWNERS:	CANADIAN ABRAXAS PETROLEUM LIMITED (80%) CASCADE OIL AND GAS LTD. (20%) (GREY WOLF EXPLORATION INC.)
AUTHORS:	T. J. PODIVINSKY, P. Geoph. R. M. CREED, P. Geol.
DATE:	MARCH 31, 1999

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INTRODUCTION / ABSTRACT

CASCADE OIL AND GAS LTD. (now GREY WOLF EXPLORATION INC.) undertook a seismic program on Exploration Licence No. 389 in the Norman Wells area during the period February 12 through March 30, 1998. Approximately 100 kilometers of multifold seismic data was acquired on and immediately adjacent to the licence. This data set consists of four northwest - southeast, strike lines and three northeast - southwest, dip lines. See Enclosure 1, 2 and 3 for the location of the Exploration Licence and the acquired seismic data.

Exploration Licence No. 389 was successfully acquired in May 1997 by Canadian Abraxas Petroleum Limited (80%) and Cascade Oil and Gas Ltd. (now Grey Wolf Exploration Inc.) The licence is located southerly adjacent to the Town of Norman Wells. The Mackenzie River flows through the northeastern portion of the licence. The licence is located between 65^{0}05' and 65^{0}17' latitude and 126^{0}30' and 127^{0}00 longitude.

Other than in the Norman Wells oil field, there is no modern well control on or adjacent to the licence. The limited well control on the licence and immediately west and east of the licence dates back to the 1920's and 1940's. South of the licence, Aquitaine Mobil Dodo Canyon K-03 (300 K03 6510 12645 00) was drilled in 1973.

The 1998 Norman Wells seismic program was designed to provide regional coverage in areas of little or no modern seismic coverage and to further define possible Middle Devonian anomalies which were observed on older data sets.

LOCATION MAPS

Exploration Licence No. 389 is situated southerly adjacent to the Town of Norman Wells and the Norman Wells oil field. The regional setting of the licence is shown on Enclosures 1 and 2. The seven seismic lines are highlighted on Enclosure 3.

SUMMARY OF LOGISTICS

SIGNIFICANT DATES

OPERATION	DATES	DURATION
ADVANCE CREW	FEBRUARY 12 - 20, 1998	9 DAYS
LINE CLEARING	FEBRUARY 21 - MARCH 20, 1998 MARCH 24 - 28, 1998	33 DAYS
SURVEY / CHAINING	FEBRUARY 28 - MARCH 19, 1998 MARCH 24 - 28, 1998	25 DAYS
RECORDING	MARCH 4 - 19, 1998 MARCH 27-28, 1998	18 DAYS
DEMOBILIZATION	MARCH 29, 1998	1 DAY

The contractor for the seismic acquisition operations was Trace Explorations Ltd.

The geophysical operation on Exploration Licence No. 389 commenced with the arrival of the advance crew on February 12, 1998; line clearing commenced on February 21, surveying and chaining on February 28 and recording on March 4, 1998. The recording was completed on March 28, 1998 and the crew was completely demobilized by March 30, 1998.

The advance crew commenced activities in Norman Wells on February 12, 1998. The advance work included:

- coordination with all of the local authorities, including Indian and Northern Affairs, the National Energy Board and the Tulita Band.
- arranged line clearance equipment and personnel through Red Dog Mountain Contracting Ltd., Sahtu Construction and Willow Lake Slashing Services.
- assess ice thickness on the Mackenzie River, and take action to bring thickness levels to at least 50 inches (1.64 meters).
- coordinate the hiring of local personnel for the recording crew.
- prepare and arrange the camp to suitable standards.

The line clearing was completed by Willow Lake Slashing Services, who undertook the slashing work, and was supported by Red Dog Mountain Contracting Ltd. and Sahtu Construction who supplied the bulldozers.

The surveying was conducted by Paragon Surveys, a Calgary based firm.

The recording crew consisted of nine technical staff from Trace's Calgary base and approximately seventeen men from the Norman Wells and Tulita areas.

EQUIPMENT USED

Four Caterpillar D-7 Bulldozers
One Caterpillar D-5 Bulldozer
One Caterpillar D-3 Bulldozer

PRODUCTION DATA

See Table (below)

TOTAL DISTANCE SURVEYED

See Table (below)

DOWNTIME PER DAY

None

NUMBER OF KILOMETRES OF DATA RECORDED PER DAY

See Table (below) (averaged 5.33 km / day)

DATE	LINE NUMBERS	STATION SOURCE	INTERVAL INTERVAL	15m 60m	PROFILES	TOTAL HOURS
		BOL	EOL	KM.		
FEB. 27	Partial Crew. Mob.			0.000		
FEB. 28	Partial Crew. Mob.			0.000		
MAR. 01	Mobilization			0.000		
MAR. 02	Local Mobilization			0.000		10.0
MAR. 03	Safety Training			0.000		10.0
MAR. 04	NW 98-104	1193	1101	1.380	24	13.0
MAR. 05	NW 98-104	1101	617	7.260	121	13.0
MAR. 05	NW 98-104	617	101	7.740	129	13.0
MAR. 07	NW 98-103	201	585	5.760	97	13.0
MAR. 08	NW 98-103	585	833	3.720	62	13.5
	NW 98-102	713	601	1.680	29	13.5
MAR. 09	NW 98-102	601	101	7.500	125	13.0
MAR. 10	NW 98-01	101	121	0.300	6	12.5
MAR. 11	NW 98-01	121	517	5.940	99	12.0
MAR. 12	NW 98-01	517	764	3.705	53	13.0
MAR. 13	NW 98-01	764	1214	6.750	50	12.0
MAR. 14	NW 98-01	1214	1466	3.780	28	12.5
MAR. 15	NW 98-01	1466	1970	7.560	56	12.0
MAR. 16	NW 98-101	101	407	4.590	35	12.0
MAR. 17	NW 98-101	407	731	4.860	36	12.5
MAR. 18	NW 98-101	731	1069	5.070	57	12.0
MAR. 19	NW 98-101	1069	1453	5.760	96	10.0
MAR. 20				0.000		
MAR. 21	STAND-BY			0.000		
MAR. 22	STAND-BY			0.000		
MAR. 23	STAND-BY			0.000		
MAR. 24	STAND-BY			0.000		
MAR. 25	STAND-BY			0.000		
MAR. 26	LAYOUT			0.000		12.0
MAR. 27	NW 98-105	759	169	8.850	88	12.0
MAR. 28	NW 98-106	737	137	9.000	88	12.0
MAR. 29	DEMOBILIZATION					

SUMMARY OF CONDITIONS

The majority of the seismic data (four strike lines) were acquired on the banks of the Mackenzie River (NW 98-101, 102, 103 and 104). Two of the dip lines (NW 98-105 and 106) extended northeast from the banks of the river. A long dip line (NW 98-01) extends from south of the acreage to the northeast where it crosses the river and ties line NW 98-104.

Approximately 61.5 kilometers of the program (strike lines) followed the banks of the Mackenzie River. Relatively warm weather caused some delays in waiting for sufficient ice thickness to permit access for the field equipment. The terrain in this area is generally flat with the exception of portions of the banks of the river where coulees were encountered at stream mouths. A tow cat was required on the south side of the river on line NW 98-101.

GENERAL DESCRIPTION OF OPERATION

Data acquisition on this program was completed using an I/O System II recording system and vibroseis source. The equipment and parameters used are as follows:

1	I/O System Two (24 bit) Telemetry Recording System, complete with
1	Pelton Advance II Sweep Generator
120	Remote Telemetry Units (6 channels per box) with battery packs
120	210 meter interconnect cables with watertight connectors
720	L210 geophone strings (10 Hx - 6 per string) equipped with waterproof connectors
3	FN 110 Tracked Line Vehicles, equipped with winch, brush guard and all related safety equipment
4	FN 240 Tracked Litton 315 Vibrators complete with Pelton Advance II electronics
2	Skidoos for trouble shooting
1	FN 60 Party Manager's Unit

RECORDING PARAMETERS

Record Length:	3 seconds
Sample Rate:	2 ms
Preamp Gain:	48 dB
Noise Edit Type:	Diversity
Tape Format:	1 EEE SEG-D
Tape Density:	37871
Low Cut Filter:	3 Hz @ 12 dB
Anti-alias Filter:	3/4 Nyquist Min.
HPE Filter:	Out
Aux. Chan. #1	ESG Ref.

Aux. Chan. #2	Wireline Ref.
Aux. Chan. #3	Timebreak
Stations in Gap	8
No. Of Channels	360

RECEIVER PARAMETERS

Geophone Array:	6 over 15 meters
Geophone Frequency:	10 Hz
Geophone Base:	2" spikes
Open Circuit Damping:	70%

SOURCE PARAMETERS

Source Type:	Vibroseis
Source Array:	30m X 10m drag
Source Interval:	60m

Parameters: 3 X 4 sweeps, 8 - 115 Hz, + 3 dB / Octave, 0.3 second Start / End Taper

GEOPHYSICAL DATA PROCESSING

1. Demultiplex / Reformat
2. Assign Geometry
3. Trace Edits
4. Amplitude Recovery
   - Exponential Gain Correction
5. Deconvolution
   - Type: 5 - Component, Surface Consistent Spiking
   - Operator Length: 80 ms
   - Prewhitening: 0.01 %
   - Design Window
     - Near Offset: 200 - 2000 ms at 0 m
     - Far Offset: 1100 - 2200 ms at 2273 m
6. Trace Equalization
   - Windows: 200 - 2000 ms at 0 m
     1100 - 2200 ms at 2273 m
7. Elevation, Weathering and Drift Corrections
   - Type: Delay Time
   - Datum (0.00 ms): 200 m
   - Weathering Velocity: 610 m / s
   - Replacement Velocity: 3353 m / s
   - Bulk Shift: 100 ms
8. CDP Sort
9. NMO Correction (Preliminary)

10. Surface - Consistent Residual Statics
    - Type: Automatic Residual Statics Computation
    - Window: 200 - 2200 ms Max. +/- 24 ms
    - Q.C.: Common Shot and Receiver Stacks
11. Final NMO Correction
    - Analysis Increment: 600 m
    - (Velocities Computed from Floating Datum)
12. FK Noise Attenuation - Shot Domain
    - Type: Time Domain Impulse Response
    - Dip Filter: +/- 1.5 ms / trace
    - Addback: 0 %
13. Mute

Distance (m):	100	300	660	1410	2753
Time (ms):	10	200	450	700	1300

14. CDP Trim Statics
    - Window: 100 - 2200 ms Max. +/- 10 ms
15. Stack
16. FX Noise Attenuation (0 - 500 ms)
    - Block: 101 Traces X 500 ms
    - Filter Len.: 17 Traces
    - Addback: 40 %
17. Migration
    - Type: Omega-X Finite Difference
    - Dip: 80 Degrees
    - TAU Step: 20 ms
    - Velocity: 100 % Stacking
18. Filter
    - Type: Zero Phase Bandpass
    - Pass Band: 10 / 14 - 80 / 100 Hz
19. Trace Equalization
    - Window: 700 - 2200 ms

SHOTPOINT MAPS

The shot point data has been enclosed in digital format (Enclosure 4) and as a mylar with two paper prints (Enclosure 5).

SEISMIC SECTIONS

The seven new seismic lines acquired by Grey Wolf Exploration Inc. are included as Enclosures six through twelve and consist of the following:

SEISMIC LINE	POLARITY	MYLAR	PAPER PRINTS
NW 98-01	NORMAL AND REVERSE MIGRATED	TWO MYLARS (N.P. & R.P.)	TWO COPIES OF EACH POLARITY
NW 98-101	NORMAL AND REVERSE MIGRATED	TWO MYLARS (N.P. & R.P.)	TWO COPIES OF EACH POLARITY
NW 98-102	NORMAL AND REVERSE MIGRATED	TWO MYLARS (N.P. & R.P.)	TWO COPIES OF EACH POLARITY
NW 98-103	NORMAL AND REVERSE MIGRATED	TWO MYLARS (N.P. & R.P.)	TWO COPIES OF EACH POLARITY
NW 98-104	NORMAL AND REVERSE MIGRATED	TWO MYLARS (N.P. & R.P.)	TWO COPIES OF EACH POLARITY
NW 98-105	NORMAL AND REVERSE MIGRATED	TWO MYLARS (N.P. & R.P.)	TWO COPIES OF EACH POLARITY
NW 98-106	NORMAL AND REVERSE MIGRATED	TWO MYLARS (N.P. & R.P.)	TWO COPIES OF EACH POLARITY

The location of the seven seismic lines is shown on Enclosures 3 and 5. The vertical time scale of the sections is 3.75 inches per second. The horizontal scale is 24 traces per inch for the normal polarity sections and 96 traces per inch for the reverse polarity sections.

SHOTPOINT LOCATION DATA

The shot point data has been enclosed in digital format (Enclosure 4) and as a mylar with two paper prints (Enclosure 5).

TOPOGRAPHIC MAPS

Topographic maps were not prepared from the seismic survey database. The elevations as surveyed for the shot points are included in digital format (Enclosure 4).

INTERPRETIVE MAPS

Approximately 500 kilometers of seismic data are being utilized in the seismic interpretation and consist of the following:

DATA SET	KILOMETERS	COMMENTS
GREY WOLF PROPRIETARY	100 KM	DATA ACQUIRED UNDER LAND USE PERMIT NUMBER N97B819
TRADE SEISMIC REPROCESSED	62 KM	TRADE SEISMIC PURCHASED AND REPROCESSED
OTHER TRADE SEISMIC	20 KM	TRADE SEISMIC PURCHASED
N.E.B. SEISMIC SCANNED	185 KM	N.E.B. PUBLIC DOMAIN SEISMIC SCANNED, MIGRATED AND REDISPLAYED
N.E.B. SEISMIC	APPROX. 140 KM	N.E.B. PUBLIC DOMAIN SEISMIC

The stratigraphic succession in the central Mackenzie Plain and Norman Wells area spans the Upper Cretaceous through Precambrian with numerous unconformities. Large portions of the sedimentary record is missing particularly the Lower Cretaceous through Permo-Carboniferous section. Although the younger Cretaceous and Upper Devonian events are apparent in the western portion of the licence where they are deeper in the section (Line 98-01, southwest end), these events are not apparent in the updip, shallower areas (Line 98-01, northeast end). The Lower through Middle Devonian carbonate, shale and evaporite succession is readily identified throughout the area of the seismic survey. The occurrence of reef buildups in portions of this section may be identified on the seismic and possible areas of Kee Scarp reef occurrence are shown on the Kee Scarp Isotime (Structure) map (Enclosure 14). The only reliable, regional seismic marker is the Middle Devonian Hume reflector and a Hume Isotime (Structure) map has been included (Enclosure 13). An unconformity occurs between the Devonian carbonate - shale - evaporite section and the underlying Silurian through Upper Cambrian carbonate packages. These Silurian through Upper Cambrian carbonate packages are themselves interrupted by numerous unconformities and no reliable, regional seismic events have been identified. Underlying the Lower Paleozoic carbonates, the Cambrian Saline River salt section has been identified on the seismic data. The isopach variation of this salt section has been noted in the regional well control and the thickness variation is apparent locally on the seismic data. The only pre-salt penetration in the area of the licence is the Vermillion Ridge N-28 well which was drilled in 1944-1945. The N-28 well penetrated the thickest Saline River salt section in the Mackenzie Plain. Without velocity control, correlation of this section to adjacent seismic is not clear at this time. Geological and geophysical evaluation of the Lower Paleozoic section and the hydrocarbon potential of this section is currently being evaluated.

SYNTHETIC SEISMOGRAMS

NSM BLUEFISH A-49	300 A49 6500 12545 00	Encl. 15
MOBIL ET AL SLATER RIVER	300 A37 6500 12600 00	Encl. 16
AQUITAINE MOBIL DODO CANYON K-03	300 K03 6510 12645 00	Encl. 17
GREY WOLF CANAXAS DEH CHO 1 B-25	300 B25 6520 12630 00	Encl. 18
GREY WOLF CANAXAS DEH CHO 2 B-14	300 B14 6520 12630 00	Encl. 19
ESSO NORMAN WELLS B-48	300 B48 6520 12645 00	Encl. 20

INTERPRETATION OF MAPS AND SEISMIC SECTIONS

The primary exploration focus in the project area and on Exploration Licence No. 389 was directed to the Middle - Upper Devonian carbonate and shale packages which contain the Kee Scarp (Ramparts) reefs. The licence is located southerly adjacent to the Norman Wells oil field which produces light oil (38.5^0) from a Kee Scarp limestone reef. Seismic template lines across the producing Kee Scarp reef at Norman Wells were acquired from various public domain data sets in order to provide an analog for possible reef anomalies.

The seismic expression of the Kee Scarp reef at Norman wells varies with the depth of the section. Seismic transects across the western, downdip portions of the reef exhibit a strong package of reflectors occurring 130 to 140 ms above the Hume relector. These downdip transects also demonstrate well developed, backstepping, in part, reef margins. The updip, shallower reef transects in the vicinity of the Norman Wells oil field have a less well developed package of reflectors at the reef level and poor to no seismic expression of the reef margin.

An interpretation of the existing and new seismic data base within Exploration Licence No. 389 revealed a number of areas with a package of seismic reflectors at the approximate level of Kee Scarp reefs. The amplitude of these reflector packages was slightly less than that over the northerly adjacent reef (Norman Wells reef) and no well developed reef margins were observed on the seismic anomalies. The anomalies did, however, appear similar to the updip seismic transects across the Norman Wells oil field. Subsequent testing of two of these anomalies proved to be unsuccessful, as no reef was encountered. Rather a thick, Canyon Creek sandstone was present at the level of the package of seismic reflectors and this sandstone development gave rise to the seismic anomalies (Enclosures 18 and 19).

The identification of the seismic reflectors was made possible by using velocity and density control north and south of Exploration Licence No. 389. The synthetic seismograms are included with this report (Enclosures 15, 16, 17 and 20). The pertinent velocity information is included on the tops tables with the synthetic seismograms.

Additional mapping and seismic interpretation will be undertaken in the future to evaluate other potential hydrocarbon reservoirs.

ENCLOSURES

LOCATION MAPS

1. REGIONAL LOCATION MAP
2. NORMAN WELLS AREA LOCATION MAP
3. EXPLORATION LICENCE NO. 389, SEISMIC LINE LOCATION MAP

SHOT POINT MAPS

4. DISK - DIGITAL SHOT POINT DATA
5. SHOT POINT LOCATION MAP - ONE MYLAR AND TWO PAPER SECTIONS

SEISMIC LINES

6. SEISMIC LINE NW 98-01 - MIGRATED, NORMAL AND REVERSE POLARITY, 3.75 INCHES PER SECOND, ONE MYLAR AND TWO PAPER SECTIONS OF EACH DISPLAY
7. SEISMIC LINE NW 98-101 - MIGRATED, NORMAL AND REVERSE POLARITY, 3.75 INCHES PER SECOND, ONE MYLAR AND TWO PAPER SECTIONS OF EACH DISPLAY
8. SEISMIC LINE NW 98-102 - MIGRATED, NORMAL AND REVERSE POLARITY, 3.75 INCHES PER SECOND, ONE MYLAR AND TWO PAPER SECTIONS OF EACH DISPLAY
9. SEISMIC LINE NW 98-103 - MIGRATED, NORMAL AND REVERSE POLARITY, 3.75 INCHES PER SECOND, ONE MYLAR AND TWO PAPER SECTIONS OF EACH DISPLAY
10. SEISMIC LINE NW 98-104 - MIGRATED, NORMAL AND REVERSE POLARITY, 3.75 INCHES PER SECOND, ONE MYLAR AND TWO PAPER SECTIONS OF EACH DISPLAY
11. SEISMIC LINE NW 98-105 - MIGRATED, NORMAL AND REVERSE POLARITY, 3.75 INCHES PER SECOND, ONE MYLAR AND TWO PAPER SECTIONS OF EACH DISPLAY
12. SEISMIC LINE NW 98-106 - MIGRATED, NORMAL AND REVERSE POLARITY, 3.75 INCHES PER SECOND, ONE MYLAR AND TWO PAPER SECTIONS OF EACH DISPLAY

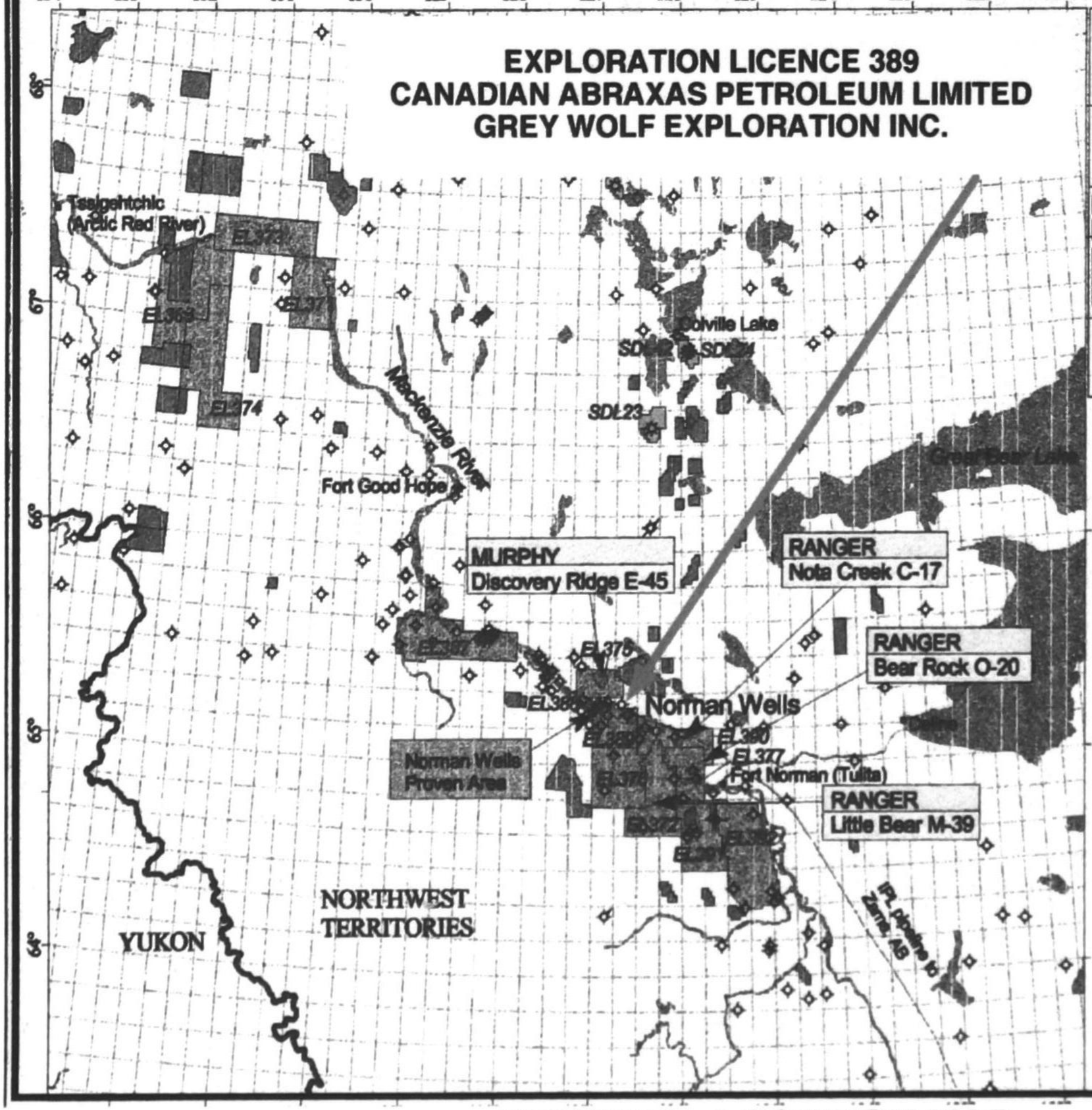
INTERPRETIVE MAPS

13. HUME STRUCTURE
14. KEE SCARP STRUCTURE

SYNTHETIC SEISMOGRAMS

15.	NSM BLUEFISH A-49	300 A49 6500 12545 00
16.	MOBIL ET AL SLATER RIVER	300 A37 6500 12600 00
17.	AQUITAINE MOBIL DODO CANYON K-03	300 K03 6510 12645 00
18.	GREY WOLF CANAXAS DEH CHO 1 B-25	300 B25 6520 12630 00
19.	GREY WOLF CANAXAS DEH CHO 2 B-14	300 B14 6520 12630 00
20.	ESSO NORMAN WELLS B-48	300 B48 6520 12645 00

EXPLORATION LICENCE 389
CANADIAN ABRAXAS PETROLEUM LIMITED
GREY WOLF EXPLORATION INC.



Indian and Northern Affairs Canada / Affaires indiennes et du Nord Canada

Northern Oil and Gas Directorate

OIL AND GAS DISPOSITIONS

Mackenzie Valley – Central Region

May 1998

80 0 80 160km

- Subsurface owners are First Nations
- Areas subject to specific environmental conditions
- EL = Exploration Licence
- PAA = Norman Wells Proven Area
- SDL = Significant Discovery Licence

new wells in red

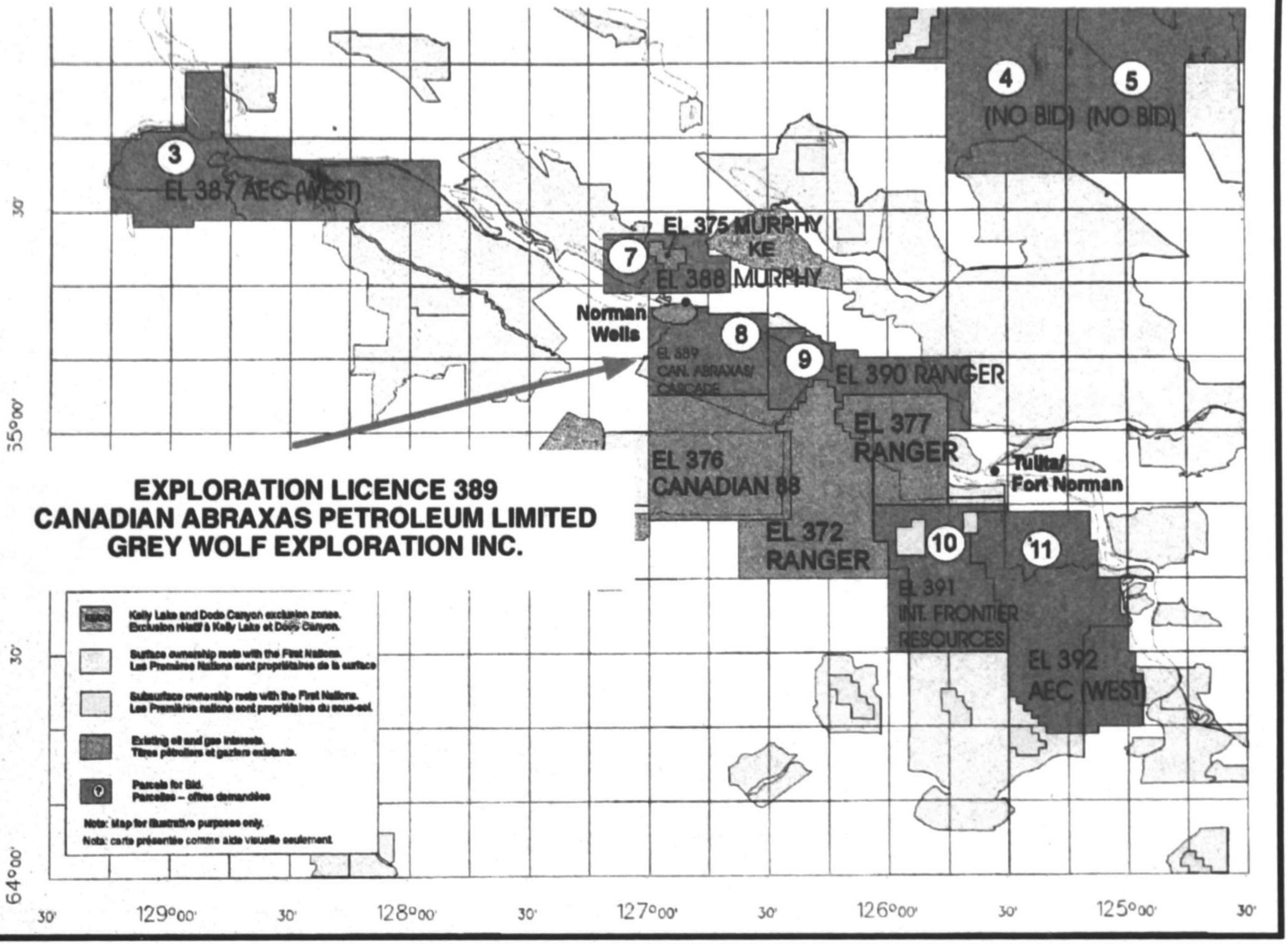
- plugged and abandoned
- plugged and suspended

Note: map for illustrative purposes only

EL371	FOXBORO	75196
EL372	RANGER	88693
EL373	GRAND RIVER	99560
EL374	GRAND RIVER	138170
EL375	MURPHY	3508
EL376	CANADIAN 88	86156
EL377	RANGER	47693
EL386	GRAND RIVER	114737
EL387	ABC WEST	128575
EL388	MURPHY	30696
EL389	CANADIAN ABRAXAS	46738
EL390	RANGER	50938
EL391	INTL FRONTIER RES	71816
EL392	ABC WEST	133518
PAA	IMPERIAL OIL	3603
SDL6	AMOCO	7367
SDL23	PETRO-CANADA	18267
SDL24	PETRO-CANADA	11420
SDL42	AMOCO	2024

REGIONAL LOCATION MAP

ENCLOSURE NO. 1

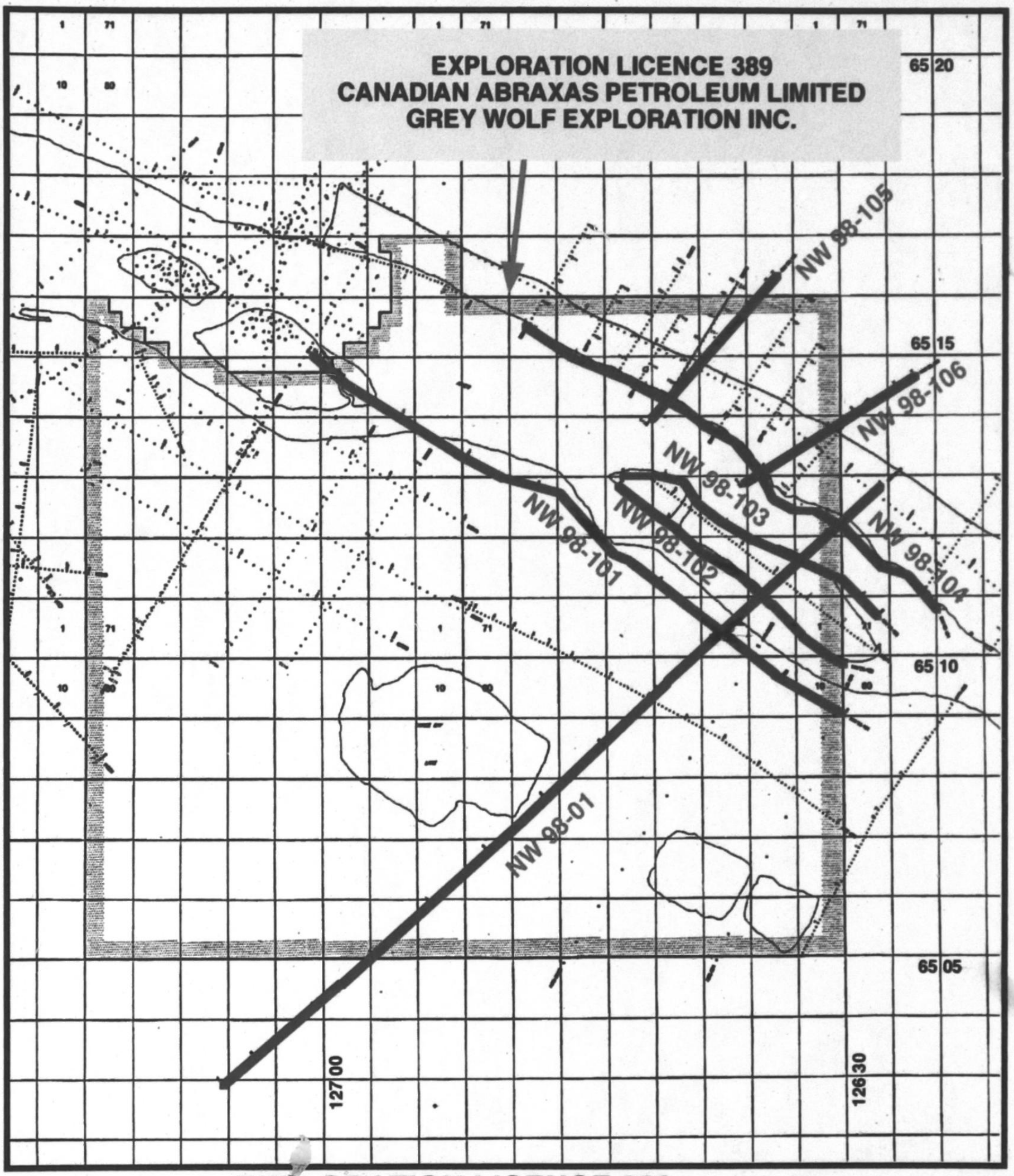


EXPLORATION LICENCE 389
CANADIAN ABRAXAS PETROLEUM LIMITED
GREY WOLF EXPLORATION INC.

NORMAN WELLS AREA LOCATION MAP

ENCLOSURE NO. 2

EXPLORATION LICENCE 389
CANADIAN ABRAXAS PETROLEUM LIMITED
GREY WOLF EXPLORATION INC.



EXPLORATION LICENCE 389
SEISMIC LINE LOCATION MAP

ENCLOSURE NO. 3

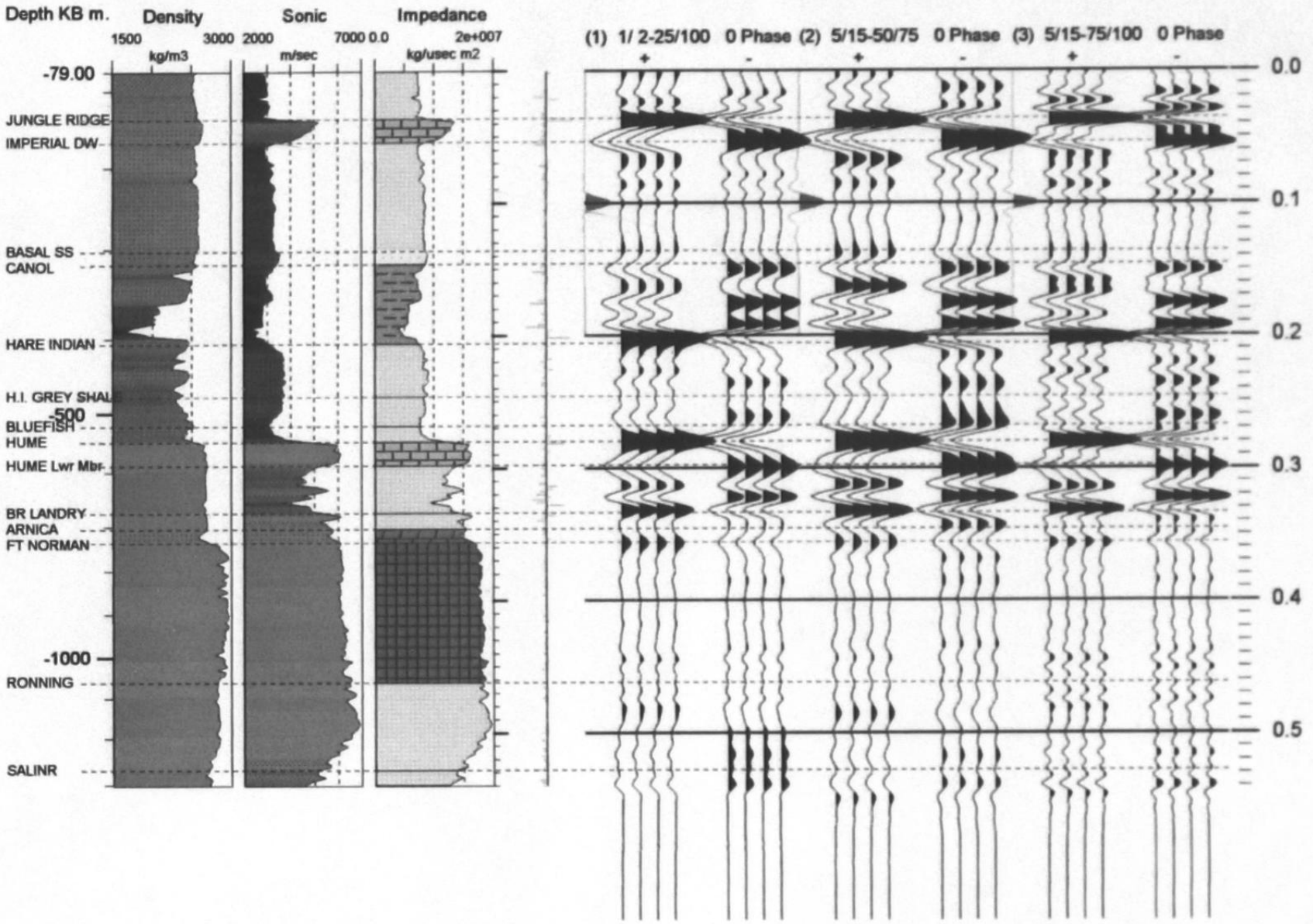
Encl. 15

GeoSyn FAR-AWAY RESOURCES LTD.

06:13 AM Mon Mar 29, 1999
Binary source file C:\GEOSYN\SYNTHE~1\NWT\A49BLUEF.SYN

NSM BLUEFISH A-49
00/A49 65-00 125-45/0
NSM
300/ A49 65-00 125-45 /50

Start depth(KB): -79.00 (m.)
End depth(KB): -1305.00 (m.)
Start time: 0.000 secs
End time: 0.542 secs
KB: 113.20 (m.) above msl
Time scale: 19.05 (cm/sec.)
Trace amplitude: 1.000
Sample rate: 2.00 (ms)
** Density is included in the reflection calculation*



NSM BLUEFISH A-49

Tops Author: RMC	Depth KB m.	Depth SS m.	Time 2 Way secs.	Vav. m/sec	Vint. m/sec	Isochron secs.	Isopach m.
Kelly Bushing = 113.20 (m.) above msl							
Top of Log	-79.00	34.20	0				
					2908.1	0.0372	54.12
JUNGLE RIDGE	-133.12	-19.92	0.0372	2908.1			
					4628.3	0.0170	39.31
IMPERIAL DW	-172.43	-59.23	0.0542	3447.1			
					3174.3	0.0823	130.57
BASAL SS	-303.00	-189.80	0.1365	3282.6			
					3440.3	0.0113	19.50
CANOL	-322.50	-209.30	0.1478	3294.7			
					2860.6	0.0584	83.50
HARE INDIAN	-406.00	-292.80	0.2062	3171.8			
					3595.2	0.0399	71.75
H.I. GREY SHALE	-477.75	-364.55	0.2461	3240.5			
					3400.9	0.0231	39.25
BLUEFISH	-517.00	-403.80	0.2692	3254.2			
					3409.1	0.0117	20.00
HUME	-537.00	-423.80	0.2809	3260.7			
					5922.9	0.0179	53.00
HUME Lwr Mbr	-590.00	-476.80	0.2988	3420.2			
					4666.4	0.0358	83.50
BR LANDRY	-673.50	-560.30	0.3346	3553.4			
					5706.2	0.0128	36.50
ARNICA	-710.00	-596.80	0.3474	3632.7			
					5732.4	0.0098	28.00
FT NORMAN	-738.00	-624.80	0.3572	3690.2			
					6172.6	0.1060	327.00
RONNING	-1065.00	-951.80	0.4631	4258.1			
					6341.1	0.0659	209.00
SALINR	-1274.00	-1160.80	0.5290	4517.6			
					4959.6	0.0125	31.00
Bottom of Log	-1305.00	-1191.80	0.5415	4527.8			

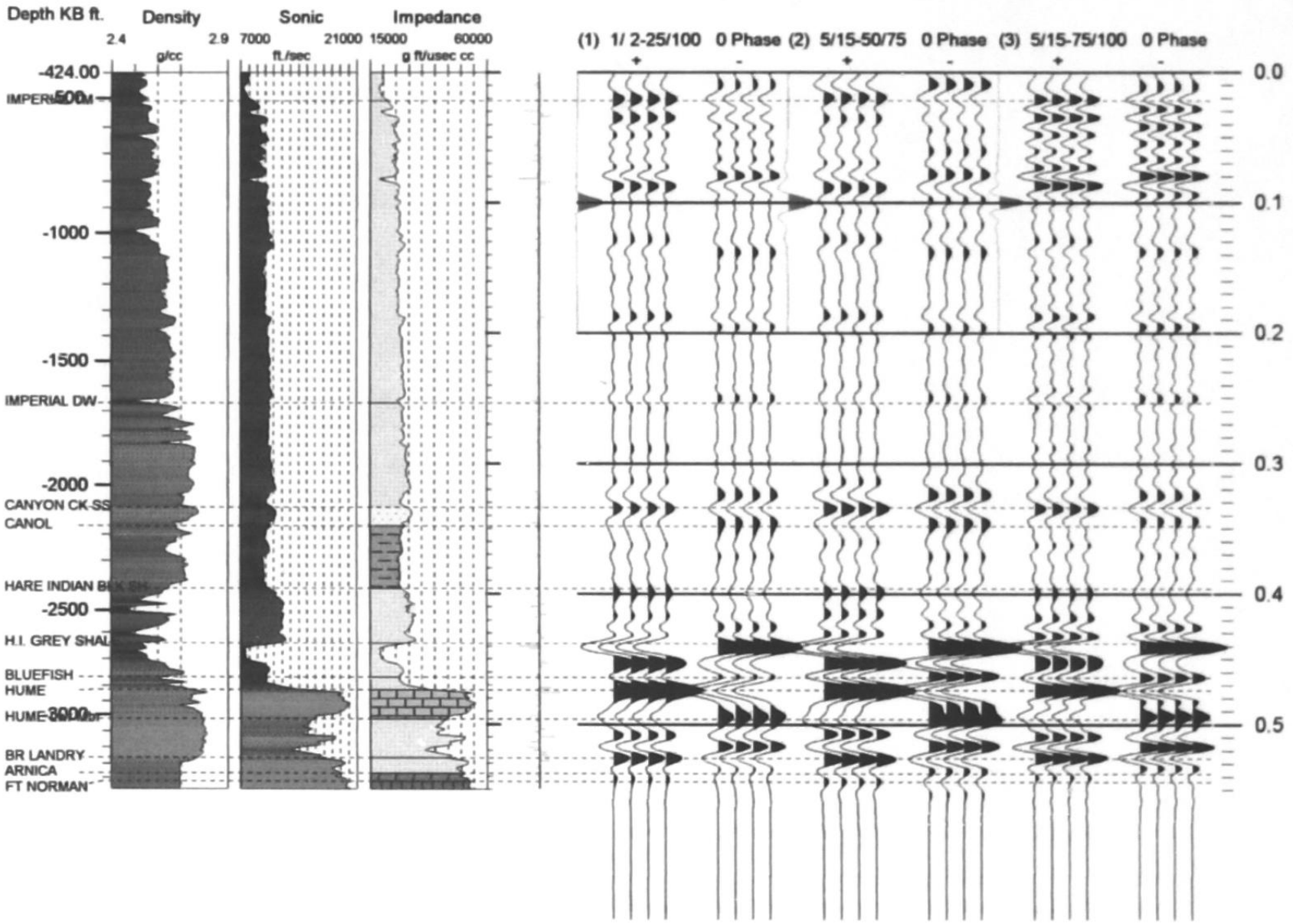
ENCL. 16

GeoSyn FAR-AWAY RESOURCES LTD.

06:15 AM Mon Mar 29, 1999
Binary source file C:\GEOSYN\SYNTHE~1\NWT\A37SLTR.SYN

MOBIL ET AL SLATER RIVER A 37
00/A37 65-00 126-00/0
MOBIL, SOCONY
300/ A37 65-00 126-00 /00

Start depth(KB): -424.00 (ft.) *KB: 435.01 (ft.) above msl*
End depth(KB): -3494.00 (ft.) *Time scale: 19.05 (cm/sec.)*
Start time: 0.000 secs *Trace amplitude: 1.000*
End time: 0.551 secs *Sample rate: 2.00 (ms)*
** Density is included in the reflection calculation*



MOBIL ET AL SLATER RIVER A 37

Tops Author: RMC	Depth KB ft.	Depth SS ft.	Time 2 Way secs.	Vav. ft/sec	Vint. ft/sec	Isochron secs.	Isopach ft.
Kelly Bushing = 435.01 (ft.) above msl							
Top of Log	-424.00	11.01	0				
					7769.0	0.0234	91.09
IMPERIAL TM	-515.09	-80.08	0.0234	7769.0			
					10005.5	0.2309	1154.91
IMPERIAL DW	-1670.00	-1234.99	0.2543	9799.3			
					10506.6	0.0799	419.90
CANYON CK SS	-2089.90	-1654.89	0.3342	9968.4			
					10928.4	0.0156	84.97
CANOL	-2174.87	-1739.86	0.3498	10011.1			
					9899.8	0.0479	237.20
HARE INDIAN BLK SH	-2412.07	-1977.06	0.3977	9997.7			
					11764.5	0.0420	246.93
H.I. GREY SHALE	-2659.00	-2223.99	0.4397	10166.4			
					8814.6	0.0247	109.00
BLUEFISH	-2768.00	-2332.99	0.4644	10094.4			
					11129.2	0.0112	62.05
HUME	-2830.05	-2395.05	0.4756	10118.7			
					18952.1	0.0211	199.95
HUME Lwr Mbr	-3030.00	-2594.99	0.4967	10493.9			
					15533.7	0.0309	240.01
BR LANDRY	-3270.01	-2835.01	0.5276	10789.1			
					18827.8	0.0112	104.99
ARNICA	-3375.00	-2939.99	0.5387	10955.6			
					19145.9	0.0065	62.01
FT NORMAN	-3437.01	-3002.00	0.5452	11052.9			
					19968.7	0.0057	56.99
Bottom of Log	-3494.00	-3058.99	0.5509	11145.2			

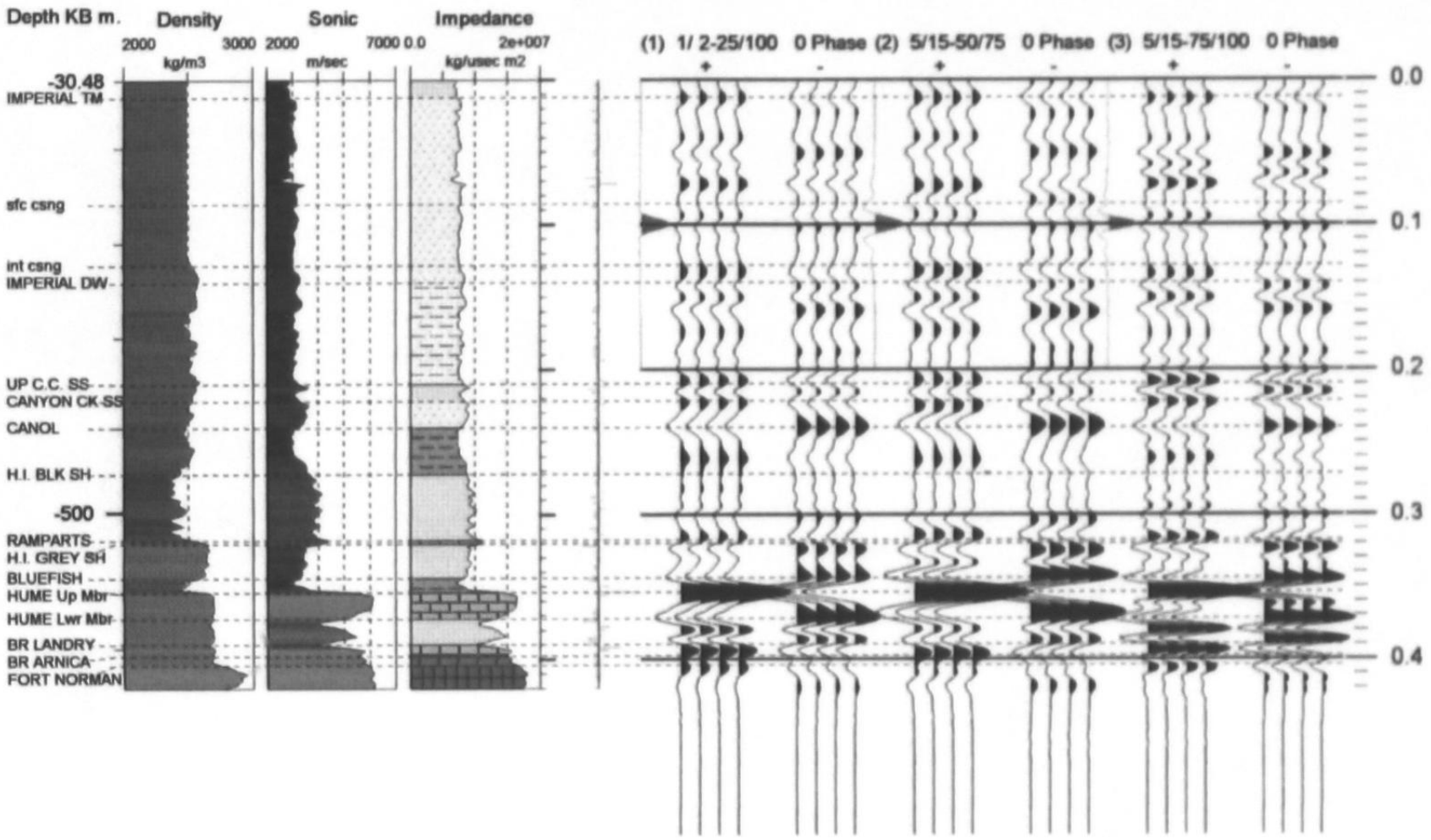
Encl. 18

GeoSyn FAR-AWAY RESOURCES LTD.

06:32 AM Tue Mar 30, 1999
Binary source file C:\GEOSYN\SYNTHE~1\WWT\B25DEHCH.SYN

GREY WOLF CANAXAS DEH CHO 1B-25
300B256520126300
GREY WOLF EXPLORATION LTD.
300/ B25 65-20 126-30 /00

Start depth(KB): -30.48 (m.)
End depth(KB): -786.28 (m.)
Start time: 0.000 secs
End time: 0.422 secs
KB: 71.80 (m.) above msl
Time scale: 19.05 (cm/sec.)
Trace amplitude: 1.000
Sample rate: 2.00 (ms)
** Density is included in the reflection calculation*



GREY WOLF CANAXAS DEH CHO 1B-25

Tops Author: RMC	Depth KB m.	Depth SS m.	Time 2 Way secs.	Vav. m/sec	Vint. m/sec	Isochron secs.	Isopach m.
Kelly Bushing =	71.80 (m.) above msl						
Top of Log	-30.48	41.32	0				
					2828.9	0.0138	19.52
IMPERIAL TM	-50.00	21.80	0.0138	2828.9			
					2999.5	0.0740	111.00
sfc csng	-161.00	-89.20	0.0878	2972.7			
					3036.9	0.0421	64.00
int csng	-225.00	-153.20	0.1300	2993.5			
					3163.7	0.0114	18.00
IMPERIAL DW	-243.00	-171.20	0.1413	3007.2			
					3090.1	0.0702	108.50
UP C.C. SS	-351.50	-279.70	0.2116	3034.7			
					3214.8	0.0118	19.00
CANYON CK SS	-370.50	-298.70	0.2234	3044.3			
					3453.8	0.0180	31.00
CANOL	-401.50	-329.70	0.2413	3074.7			
					3121.5	0.0317	49.50
H.I. BLK SH	-451.00	-379.20	0.2731	3080.2			
					3865.1	0.0453	87.50
RAMPARTS	-538.50	-466.70	0.3183	3191.8			
					4644.7	0.0017	4.00
H.I. GREY SH	-542.50	-470.70	0.3200	3199.6			
					3429.3	0.0255	43.80
BLUEFISH	-586.30	-514.50	0.3456	3216.6			
					3215.9	0.0086	13.90
HUME Up Mbr	-600.20	-528.40	0.3542	3216.6			
					5850.3	0.0179	52.30
HUME Lwr Mbr	-652.50	-580.70	0.3721	3343.1			
					4592.0	0.0194	44.50
BR LANDRY	-697.00	-625.20	0.3915	3405.0			
					5489.0	0.0084	23.00
BR ARNICA	-720.00	-648.20	0.3999	3448.6			
					5823.0	0.0058	17.00
FORT NORMAN	-737.00	-665.20	0.4057	3482.8			
					6106.5	0.0161	49.28
Bottom of Log	-786.28	-714.48	0.4219	3583.2			

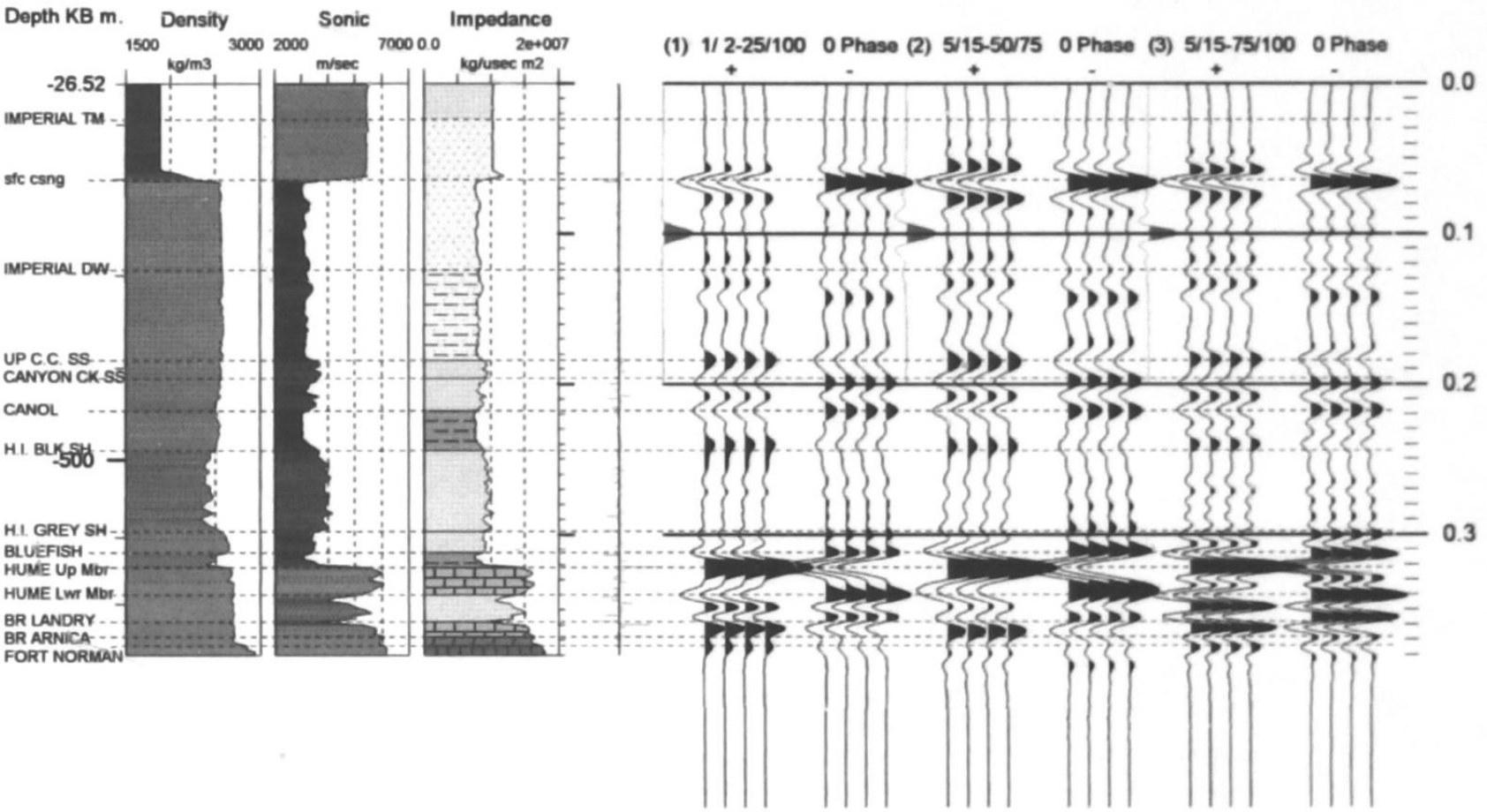
Encl. 19

GeoSyn FAR-AWAY RESOURCES LTD.

06:31 AM Tue Mar 30, 1999
Binary source file C:\GEOSYN\SYNTHE~1\NWT\B14DEHCH.SYN

GREY WOLF CANAXAS DEH CHO 2 B-14
300-B14-6520-12630-0
GREY WOLF EXPLORATION INC.
300/ B14 65-20 126-30 /00

Start depth(KB): -26.52 (m.) *KB: 65.30 (m.) above msl*
End depth(KB): -797.05 (m.) *Time scale: 19.05 (cm/sec.)*
Start time: 0.000 secs *Trace amplitude: 1.000*
End time: 0.382 secs *Sample rate: 2.00 (ms)*
** Density is included in the reflection calculation*



GREY WOLF CANAXAS DEH CHO 2 B-14

Tops Author: RMC	Depth KB m.	Depth SS m.	Time 2 Way secs.	Vav. m/sec	Vint. m/sec	Isochron secs.	Isopach m.
Kelly Bushing =	65.30 (m.) above msl						
Top of Log	-26.52	38.78	0				
					5437.2	0.0256	69.48
IMPERIAL TM	-96.00	-30.70	0.0256	5437.2			
					5413.7	0.0393	106.50
sfc csng	-202.50	-137.20	0.0649	5423.0			
					3115.9	0.0607	94.50
IMPERIAL DW	-297.00	-231.70	0.1256	4308.4			
					3173.5	0.0594	94.20
UP C.C. SS	-391.20	-325.90	0.1849	3944.1			
					3610.9	0.0128	23.10
CANYON CK SS	-414.30	-349.00	0.1977	3922.5			
					3355.3	0.0213	35.70
CANOL	-450.00	-384.70	0.2190	3867.4			
					3090.1	0.0260	40.20
H.I. BLK SH	-490.20	-424.90	0.2450	3784.9			
					3884.6	0.0534	103.80
H.I. GREY SH	-594.00	-528.70	0.2985	3802.7			
					3408.1	0.0154	26.20
BLUEFISH	-620.20	-554.90	0.3138	3783.4			
					3291.7	0.0085	14.00
HUME Up Mbr	-634.20	-568.90	0.3223	3770.4			
					5812.4	0.0182	52.80
HUME Lwr Mbr	-687.00	-621.70	0.3405	3879.4			
					4702.0	0.0194	45.50
BR LANDRY	-732.50	-667.20	0.3599	3923.6			
					5595.6	0.0083	23.10
BR ARNICA	-755.60	-690.30	0.3681	3961.1			
					5988.6	0.0061	18.40
FORT NORMAN	-774.00	-708.70	0.3743	3994.4			
					6145.4	0.0075	23.05
Bottom of Log	-797.05	-731.75	0.3818	4036.7			