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**Petroleum Resources Assessment of the**  
**Eagle Plains Park Proposal,**  
**Yukon Territory, Canada**

**January, 1996**

## I. Introduction:

A study of the eastern portion of the Eagle Plain Basin, Yukon Territory was undertaken in response to a request from the Yukon Territorial government. The objective of this study was to investigate the petroleum resource potential and endowment of the region to assist in planning purposes for Territorial park proposals. This study references a previous study published in 1995, assessing the entire Eagle Plain Basin. This report was prepared by the National Energy Board on behalf of the Yukon Territorial Government.

## II. Methodology:

This assessment uses the same methodology as the aforementioned 1995 study, but scaled down for a smaller area. The study area is located between Latitudes 65° and 68° North and Longitudes 135° and 138° West. The discovered resources, hydrocarbon tests and significant show information for the reduced area is summarized in Table 1, the potential plays are listed in Table 2, and the potential resources for those plays are shown in Table 3. The descriptive play sheets from the 1995 study are still valid and may be referenced for this study. A map highlighting the potential in the study area is included. The data input sheets and output sheets for the @Risk program for each play in the reduced area are attached as an Appendix. The systematic statistical analysis used a resource assessment methodology developed by the NEB. A description of the methodology was included in the NEB's *Natural Gas Resource Assessment, Northeast British Columbia*, released as a working paper in January 1994.

Table 1

### Current Shows and Estimates of Discovered Resources

#### Oil:

<u>Location &amp; Zone</u>	<u>Test Rate/Recovery</u>	<u>Estimated Resource</u>
	<u>m(feet)</u>	<u>10<sup>3</sup>m<sup>3</sup>(MMBbls)</u>
Chance D-22 Fishing Branch	oil cut mud	0
Birch B-34 Jungle Cr.	oil cut mud	0
Chance M-08 Chance #1	610m(2,000) oil	700(4.44)
Chance #2	4 bbls oil	20(0.12)
Chance #3	4 bbls oil	0
Canoe R.#2	290m(1,000) oil	7.3(0.05)
Chance G-08 Chance #1A	360m(1,180) oil	770(4.87)
Chance J-19 Chance #3	500m(1,640) oil	260(1.64)
Canoe	oil cut mud	0
E. Chance C-18 Canoe	37m(120) cond.	0
W. Parkin D-51 Canoe	91m(300) oil	0

**Total Oil: 1 757.3(11.05)**

**Table 1 (cont'd.) Current Shows and Estimates of Discovered Resources****Gas:**

	<u>m<sup>3</sup>/d(mcf/d)</u>	<u>10<sup>6</sup>m<sup>3</sup>(Bcf)</u>
Chance G-08 Fishing Branch	93 447(3,300)	150(5.0)
Chance #1A	gas TSTM	0
Chance M-08 Fishing Branch	22 994(812)	incl.
Chance #1	283 174(10,000)	770(27.2)
Chance #2	14 159(500)	212(7.5)
Chance #3	14 159(500)	212(7.5)
Canoe R. #2	283 000(10,000)	2.8(0.1)
Tuttle	226 539(8,000)	57(2.0)
W. Parkin C-33 Fishing Branch	7 929(280)	0
Canoe	gas TSTM	0
W. Parkin D-51 Fishing Branch	gas TSTM	0
Canoe	gas TSTM	0
N. Parkin D-61 Fishing Branch	gas cut water	0
Whitefish J-70 Fishing Branch	gas cut water	0
W. Parkin D-54 Fishing Branch	1 004(36)	0
Canoe	gas cut water	0
Chance D-22 Fishing Branch	gas cut mud	0
Blackie M-59 Jungle Cr.	79 288(2,800)	660(23.3)
Canoe	4 021(142)	0
S. Chance D-63 Jungle Cr.	gas cut mud	0
Birch E-53 Jungle Cr.	gas cut water	0
Porcupine I-13 Jungle Cr.	368(13)	0
Canoe	1 444(51)	0
Birch B-34 Jungle Cr.	gas TSTM	0
Chance	150 000(5,500)	179(6.3)
Tuttle	200 000(7,300)	81(3.0)
E. Chance C-18 Chance	56 502(1,600)	0
Canoe	14 640(512)	0
Chance J-19 Canoe R. #1	62 690(2,214)	52(1.8)
Porcupine K-56 Canoe	gas TSTM	0
Ellen C-24 Tuttle	gas cut mud	0
Whitefish I-05 Tuttle	gassy water	0
Ridge F-48 Tuttle	1 246(44)	0
S. Tuttle N-05 Ogilvie	gas TSTM	0
Gossage	28 540(1,000)	0
Schaffer )-22 Gossage	gas cut mud	0
Peel Plat. N-49 Ogilvie	gassy mud	0

**Total Gas: 2 376(83.7)****Table 2****List of Plays With Petroleum Potential****Established Plays:**

Cretaceous Fishing Branch Sand-Laramide folds  
 Permian Jungle Creek Sand-Laramide folds  
 Mississippian Chance Sand-Laramide folds  
 Mississippian Chance Sand-Structural & Stratigraphic  
 Mississippian Chance Sand-Stratigraphic  
 Mississippian Canoe River Limestone-Stratigraphic  
 Lower Carboniferous Tuttle Sand-Stratigraphic

**Potential For:**

gas  
 gas & oil  
 gas & oil  
 gas & oil  
 gas & oil  
 gas & oil  
 gas

Table 2 (cont'd)      List of Plays With Petroleum Potential

Immature Plays:

Cretaceous Sands-Triangle Zone Structures	gas
Upper Carboniferous Ettrain Limestone-Stratigraphic	gas
Devonian Ogilvie/Gossage Carbonates-Stratigraphic	gas
Devonian Ogilvie/Gossage Carbonates-Antiformal Structures	gas
Ordovician/Silurian Ronning Group-Stratigraphic	gas

III. Discussion of Results

Note: The estimates of potential resources are based on limited data, especially for the immature plays and for the stratigraphic plays. There is considerable uncertainty involved both in the play analysis and in the play assessment.

Table 3A

Petroleum Potential By Play

<u>Play</u>	<u>Gas Potential @ Mean</u> <u>10<sup>6</sup>m<sup>3</sup> (Bcf)</u>	<u>Oil Potential @ Mean</u> <u>10<sup>3</sup>m<sup>3</sup> (MMBbls)</u>
<u>Established:</u>		
Fishing Branch	725 (25.6) @39.8%	0
Jungle Creek	640 (22.6) @42.0%	15.9 (0.1) @41.2%
Chance-Laramide	2 487 (87.8) @42.2%	207.0 (1.3) @41.6%
-Structural/Strat.	2 176 (76.8) @42.2%	2 067.0 (13.0) @41.6%
-Stratigraphic	1 541 (54.4) @41.1%	1 908.0 (12.0) @39.7%
Canoe River	725 (25.6) @39.3%	80.0 (0.5) @36.0%
Tuttle	1 082 (38.2) @39.3%	0
<u>Immature:</u>		
Cretaceous Triangle Zone	1 317 (46.5) @38.7%	0
Ettrain	241 (8.5) @37.4%	0
Ogilvie/Gossage-Strat.	4 836 (170.7) @36.7	0
-Antif.	788 (27.8) @34.9%	0
Ronning	2 980 (105.2) @35.1%	0
<b>Total:</b>	<b>19 538 (689.6) @37.6%</b>	<b>4 277.1 (26.8) @36.3%</b>

**Established Plays:**

The eastern portion of the basin contains about one half of the gas potential of the Fishing Branch sand, about two-thirds of the gas and oil potential of the Jungle Creek sand and almost all of the gas and oil potential of the Chance sands. The surface traces of the Laramide anticlines are the most prospective for these horizons. The portion of the study area containing Chance sands (southeast corner of the basin) would be the most prospective by far. This area's potential is further enhanced by having about one-half of the gas and oil potential of the Canoe R. limestone and some of the gas potential of the Tuttle sand.

**Immature Plays:**

The entire gas potential of Cretaceous Triangle Zone play for the basin is contained within the study area, covering the northeast corner of the basin. The potential for the Ettrain limestone and the antiformal structures within the Devonian Gossage/Ogilvie carbonates would further enhance the potential in the southeast corner of the basin. Gas potential for stratigraphic traps in the Gossage/Ogilvie and Ronning Group carbonates cover the central and eastern portions of the study area. Although the chance of having multiple pay horizons is lower in these areas, these carbonate plays have a larger potential resource value.

In summary, the region displaying the highest petroleum potential in the study area is contained within the boundaries of the Eagle Plain Basin, south of Latitude  $66^{\circ} 15'$  North and between Longitudes  $136^{\circ} 45'$  and  $138^{\circ}$  West. Areas to the north have lesser potential for petroleum. This region contains gas potential in the Cretaceous Fishing Branch sand; gas and oil potential in the Permian Jungle Creek sand; gas and oil potential in the Mississippian Chance sand; gas and oil potential in the Mississippian Canoe River limestone; gas potential in the Carboniferous Tuttle sand; gas potential in the Carboniferous Ettrain limestone; gas potential in the Devonian Gossage/Ogilvie carbonates and gas potential in the Ordovician-Silurian Ronning Group carbonates.

136° W

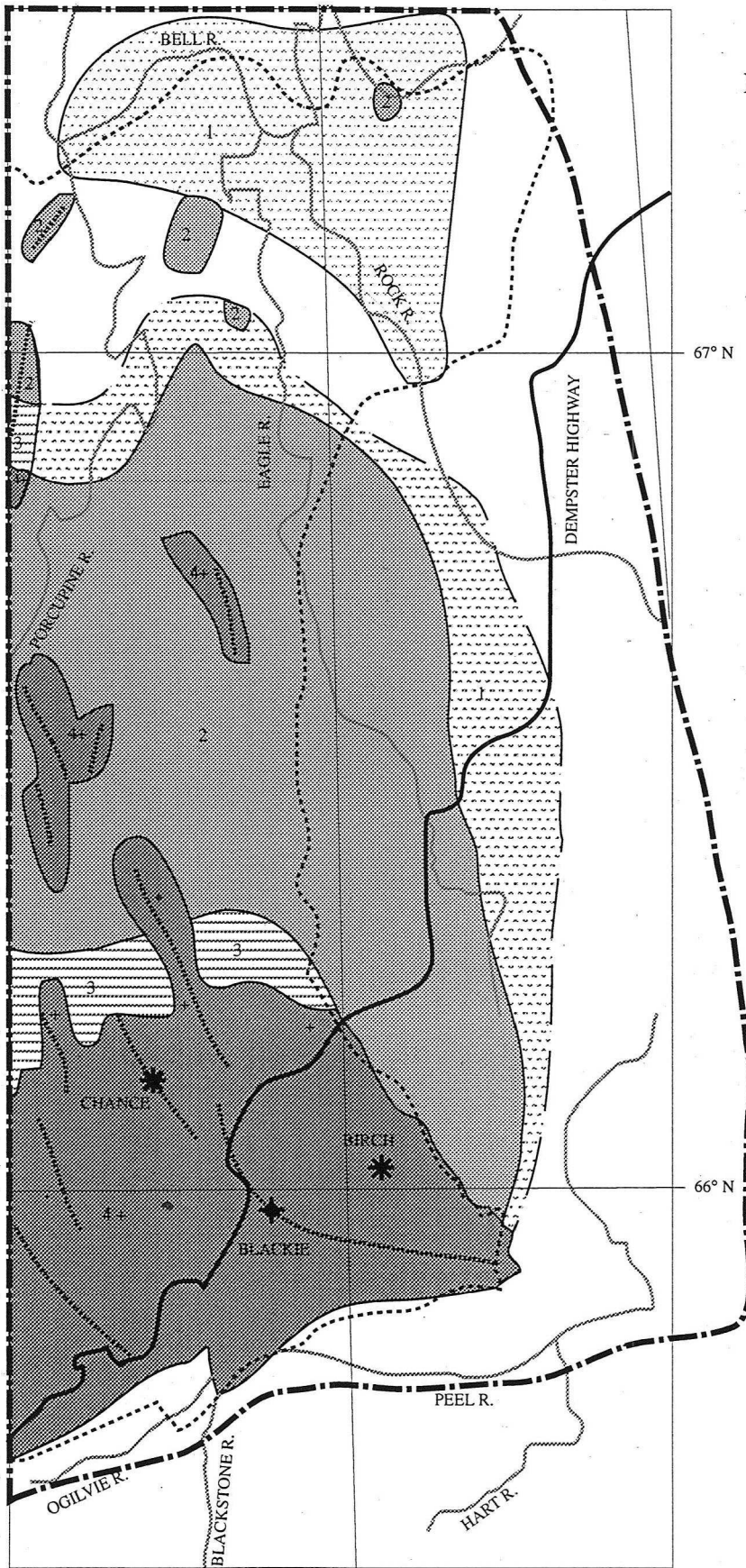
137° W

136° W

**Figure 1**

**Map of Petroleum Potential in Proposed Eagle Plains Park Region**

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**Legend**

- Approximate edge of Eagle Plain Basin
- ..... Surface traces of Laramide Anticlines
- - - - Study area
- No recognized potential
- ▨ Potential in one play
- ▩ Potential in two plays
- ▧ Potential in three plays
- ▦ Potential in four or more plays

**Appendix 1**

**@ Risk Input and Output Sheets**

**TABLE 3 B TOTAL POTENTIAL OIL & GAS RESOURCES OF EAGLE PLAINS PARK AREA**

Simulation Results for EAGLEPX.XLS  
 Iterations= 5000  
 Output Range: RO\_2SD / MEAN  
 Cell: B14  
 Minimum= 1.7  
 Maximum= 283.0  
 Mean= 26.8  
 Std Deviation= 21.3  
 Prob. of Mean 36.3%  
 Mode= 22.8

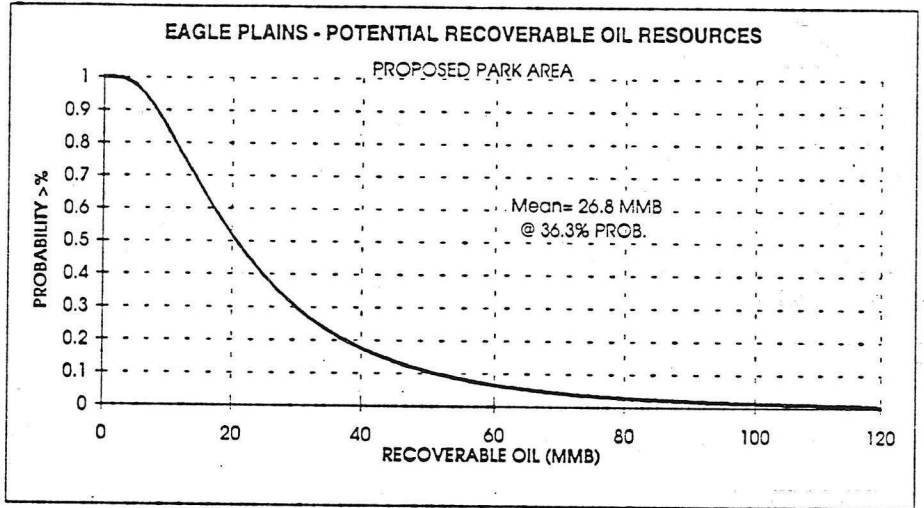
**EAGLE PLAINS - POTENTIAL RECOVERABLE OIL RESOURCES**

**PROPOSED PARK AREA**

Mean= 26.8 MMB  
 @ 36.3% PROB.

Percentile Values

100%	0.0
95%	6.6
90%	8.6
85%	10.2
80%	11.6
75%	13.1
70%	14.5
65%	16.0
60%	17.6
55%	19.2
50%	21.0
45%	22.9
40%	25.1
35%	27.5
30%	30.3
25%	33.7
20%	37.8
15%	43.4
10%	51.5
5%	66.3
0%	283.0



Simulation Results for EAGLEPX.XLS  
 Iterations= 5000  
 Output Range: MG\_2.5SD / MEAN  
 Cell: B14  
 Minimum= 51.7  
 Maximum= 5767.0  
 Mean= 689.6  
 Std Deviation= 481.6  
 Prob. of Mean 37.6%  
 Mode= 480.4

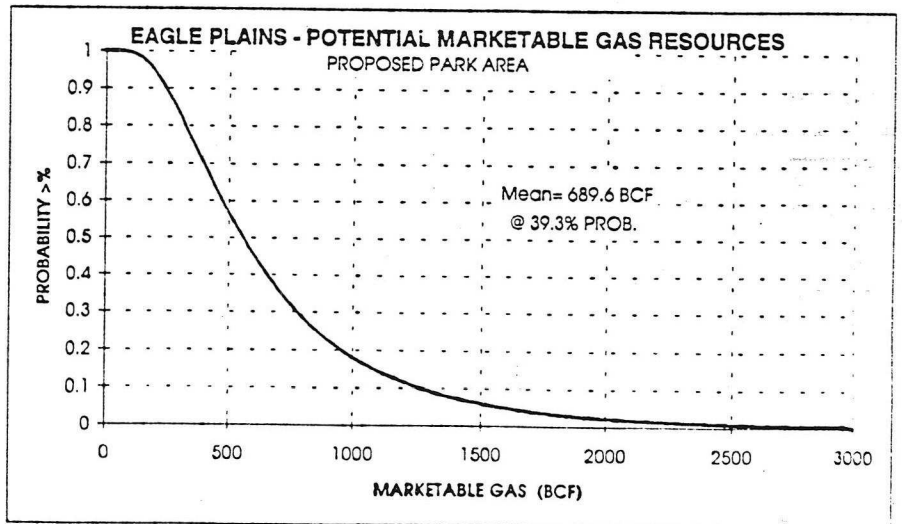
**EAGLE PLAINS - POTENTIAL MARKETABLE GAS RESOURCES**

**PROPOSED PARK AREA**

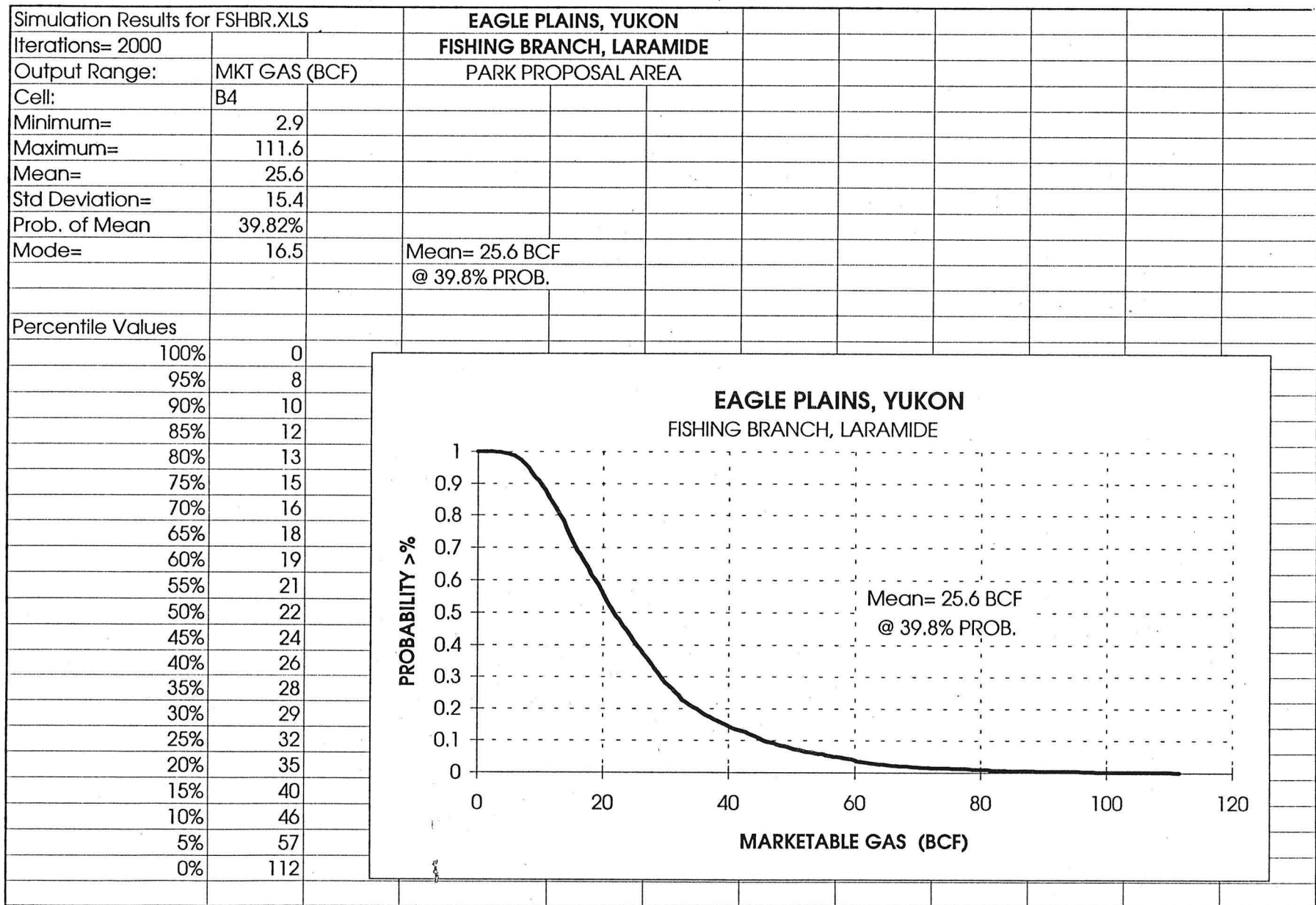
Mean= 689.6 BCF  
 @ 37.6% PROB.

Percentile Values

100%	0.0
95%	199.7
90%	251.3
85%	293.4
80%	331.9
75%	368.8
70%	405.4
65%	442.7
60%	481.2
55%	521.7
50%	564.7
45%	611.4
40%	662.7
35%	720.5
30%	786.7
25%	864.8
20%	961.0
15%	1086.7
10%	1268.4
5%	1595.8
0%	5767.0



ESTIMATION OF UNDISCOVERED RESOURCES								
	<u>AREA/REGION</u>	EAGLE PLAINS, YUKON						
	<u>PLAY NAME</u>	FISHING BRANCH, LARAMIDE				PARK PROPOSAL AREA		
	<u>ESTIMATOR NAME</u>	J. DAVIDSON						
	<u>OIL DEPTH</u>	2400	<u>GAS DEPTH</u>	2385	(FEET)			
	<u>GAS: RESERVOIR TEMP (°F)</u>	66.0	<u>PRESSURE</u>	792	(PSI)			
			MOST					
		<u>MINIMUM</u>	<u>LIKELY</u>	<u>MAXIMUM</u>	<u>MEAN</u>			
A	TOTAL PLAY AREA (MM ACRES)	1.5000	1.6400	1.7000	1.613			
A'	TESTED PLAY AREA (MM ACRES)	0.210	0.210	0.210	0.210			
B	UNTESTED PLAY AREA (MM ACRES)	1.290	1.430	1.490	1.403			
C	FRACTION OF B IN TRAP	0.100	0.190	0.250	0.180			
D	FRACTION OF C FILLED (AREALLY)	0.250	0.500	0.700	0.483			
E	POTENTIAL HC AREA (MM ACRES)				0.122			
F	POROSITY	0.050	0.120	0.220	0.130			
G	HC SATURATION	0.500	0.650	0.750	0.633			
H	OIL RECOVERY FACTOR	0.100	0.150	0.200	0.150			
I	GAS RECOVERY FACTOR	0.250	0.470	0.650	0.457			
J	AVERAGE NET PAY (FEET)	10.0	16.0	26.0	17.333			
K	PROB OF HYDROCARBONS	0.050	0.130	0.200	0.127			
L	FRAC OF PORE VOL OIL BEARING	0.000	0.000	0.000	0.000			
M	POTENTIAL OIL AREA (MM ACRES)				0.000			
N	POTENTIAL GAS AREA (MM ACRES)				0.015			
O	GOR (MCF/BBL)	0.228	0.240	0.252	0.240			
P	FVF	1.130	1.137	1.144	1.137			
Q	GAS COMPRESSIBILITY FACTOR 'Z'	0.800	0.900	0.950	0.883			
R	GVF				0.061			
S	OIL IN PLACE (BBL/ACRE-FOOT)				561.9			
T	OIL RECOVERY (BBL/ACRE-FOOT)				84.3			
U	GAS IN PLACE (MCF/ACRE-FOOT)				217.0			
V	RAW GAS RECOVERY (MCF/AC-FT)				99.1			
W	MARKETABLE GAS REC (MCF/AC-FT)				93.8			
X	LIQUIDS YIELD (BBL/MMCF)	4.0	5.1	6.4	5.167			
Y	H2S CONTENT (FRAC)	0.000	0.000	0.000	0.000			
Z	CO2 CONTENT (FRAC)	0.001	0.003	0.050	0.018			
	GAS TO BOE CONVERSION FACTOR (MCF/BOE)		6.000					
	SURFACE LOSS (FUEL GAS, ETC)		0.050					
	MARKETABLE GAS (FRAC. OF RAW)		0.947					
	TOTAL FOR PLAY							
		<u>OIL</u>	<u>SOL GAS</u>	<u>NA GAS</u>	<u>TOT GAS</u>	<u>LIQS</u>	<u>BOE</u>	<u>MKT GAS</u>
		<u>MMB</u>	<u>BCF</u>	<u>BCF</u>	<u>BCF</u>	<u>MMB</u>	<u>MMBOE</u>	<u>BCF</u>
	<u>IN PLACE</u>	0.00		58.16	58.16		9.69	
	<u>RECOVERABLE</u>	0.00	0.00	26.56	26.56	0.14	4.56	25.15
	SULPHUR (MMLT)		0.00					



ESTIMATION OF UNDISCOVERED RESOURCES								
	AREA/REGION	EAGLE PLAINS, YUKON		PROPOSED PARK AREA				
	PLAY NAME	JUNGLE CREEK SS, LARAMIDE						
	ESTIMATOR NAME	J. DAVIDSON						
	OIL DEPTH	2000	GAS DEPTH	2000	(FEET)			
	GAS: RESERVOIR TEMP (°F)	70.0	PRESSURE	775	(PSI)			
				MOST				
		MINIMUM	LIKELY	MAXIMUM	MEAN			
A	TOTAL PLAY AREA (MM ACRES)	0.4500	0.4900	0.5100	0.483			
A'	TESTED PLAY AREA (MM ACRES)	0.050	0.050	0.050	0.050			
B	UNTESTED PLAY AREA (MM ACRES)	0.400	0.440	0.460	0.433			
C	FRACTION OF B IN TRAP	0.120	0.160	0.180	0.153			
D	FRACTION OF C FILLED (AREALLY)	0.300	0.500	0.700	0.500			
E	POTENTIAL HC AREA (MM ACRES)				0.033			
F	POROSITY	0.050	0.100	0.150	0.100			
G	HC SATURATION	0.600	0.700	0.800	0.700			
H	OIL RECOVERY FACTOR	0.100	0.150	0.200	0.150			
I	GAS RECOVERY FACTOR	0.400	0.550	0.800	0.583			
J	AVERAGE NET PAY (FEET)	15.0	35.0	60.0	36.667			
K	PROB OF HYDROCARBONS	0.100	0.200	0.250	0.183			
L	FRAC OF PORE VOL OIL BEARING	0.001	0.005	0.010	0.005			
M	POTENTIAL OIL AREA (MM ACRES)				0.000			
N	POTENTIAL GAS AREA (MM ACRES)				0.006			
O	GOR (MCF/BBL)	0.190	0.200	0.210	0.200			
P	FVF	1.108	1.114	1.120	1.114			
Q	GAS COMPRESSIBILITY FACTOR 'Z'	0.800	0.900	0.950	0.883			
R	GVF				0.059			
S	OIL IN PLACE (BBL/ACRE-FOOT)				487.5			
T	OIL RECOVERY (BBL/ACRE-FOOT)				73.1			
U	GAS IN PLACE (MCF/ACRE-FOOT)				179.2			
V	RAW GAS RECOVERY (MCF/AC-FT)				104.5			
W	MARKETABLE GAS REC (MCF/AC-FT)				100.5			
X	LIQUIDS YIELD (BBL/MMCF)	0.40	0.48	0.60	0.493			
Y	H2S CONTENT (FRAC)	0.000	0.000	0.000	0.000			
Z	CO2 CONTENT (FRAC)	0.007	0.008	0.009	0.008			
	GAS TO BOE CONVERSION FACTOR (MCF/BOE)		6.000					
	SURFACE LOSS (FUEL GAS, ETC)		0.030					
	MARKETABLE GAS (FRAC. OF RAW)		0.962					
	TOTAL FOR PLAY							
		OIL	SOL GAS	NA GAS	TOT GAS	LIOS	BOE	MKT GAS
		MMB	BCF	BCF	BCF	MMB	MMBOE	BCF
	IN PLACE	0.58		39.80	39.80		7.21	
	RECOVERABLE	0.09	0.02	23.22	23.23	0.01	3.97	22.35
	SULPHUR (MMLT)		0.00					

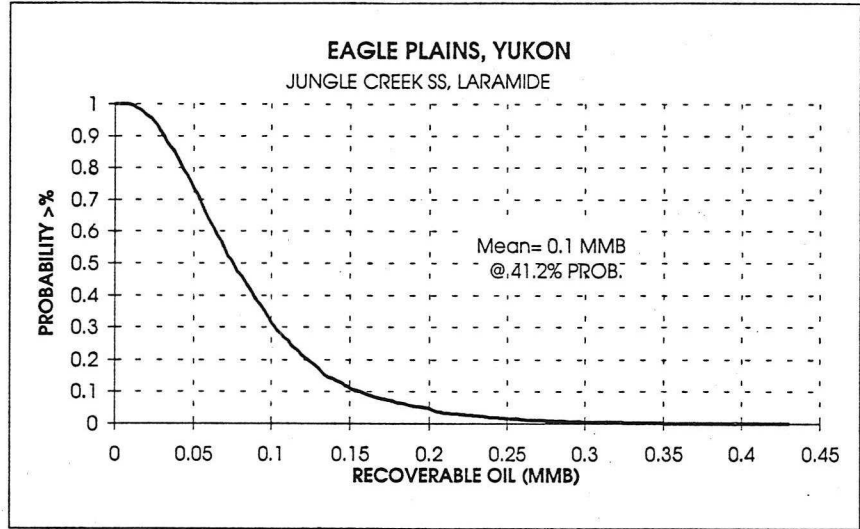
Simulation Results for JNGLCR.XLS  
 Iterations= 2000  
 Output Range: REC OIL (MMB)  
 Cell: B6  
 Minimum= 0.0  
 Maximum= 0.4  
 Mean= 0.1  
 Std Deviation= 0.1  
 Prob. of Mean 41.2%  
 Mode= 0.1

**EAGLE PLAINS, YUKON**  
**JUNGLE CREEK SS, LARAMIDE**  
**PROPOSED PARK AREA**

Mean= 0.1 MMB  
 @ 41.2% PROB.

Percentile Values

100%	0.0
95%	0.0
90%	0.0
85%	0.0
80%	0.0
75%	0.1
70%	0.1
65%	0.1
60%	0.1
55%	0.1
50%	0.1
45%	0.1
40%	0.1
35%	0.1
30%	0.1
25%	0.1
20%	0.1
15%	0.1
10%	0.2
5%	0.2
0%	0.0



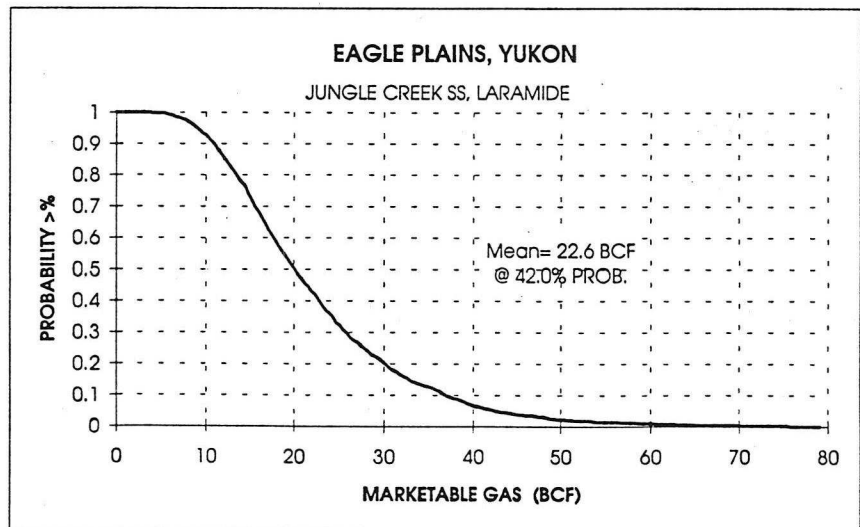
Simulation Results for JNGLCR.XLS  
 Iterations= 2000  
 Output Range: MKT GAS (BCF)  
 Cell: B4  
 Minimum= 3.8  
 Maximum= 79.1  
 Mean= 22.6  
 Std Deviation= 10.9  
 Prob. of Mean 42.0%  
 Mode= 17.0

**EAGLE PLAINS, YUKON**  
**JUNGLE CREEK SS, LARAMIDE**  
**PROPOSED PARK AREA**

Mean= 22.6 BCF  
 @ 42.0% PROB.

Percentile Values

100%	0.0
95%	9.2
90%	11.1
85%	12.4
80%	13.7
75%	14.8
70%	15.8
65%	16.8
60%	17.9
55%	19.0
50%	20.3
45%	21.6
40%	23.0
35%	24.5
30%	26.1
25%	28.0
20%	30.3
15%	33.0
10%	37.1
5%	42.5
0%	79.1



ESTIMATION OF UNDISCOVERED RESOURCES								
AREA/REGION		EAGLE PLAINS, YUKON <u>PROPOSED PARK AREA</u>						
PLAY NAME		Chance Sand, Laramide						
ESTIMATOR NAME		J. DAVIDSON						
OIL DEPTH		4200	GAS DEPTH		4200	(FEET)		
GAS: RESERVOIR TEMP (°F)		90	PRESSURE		3368	(PSI)		
		MOST						
		<u>MINIMUM</u>	<u>LIKELY</u>	<u>MAXIMUM</u>	<u>MEAN</u>			
A	TOTAL PLAY AREA (MM ACRES)	0.5200	0.5660	0.5900	0.559			
A'	TESTED PLAY AREA (MM ACRES)	0.070	0.070	0.070	0.070			
B	UNTESTED PLAY AREA (MM ACRES)	0.450	0.496	0.520	0.489			
C	FRACTION OF B IN TRAP	0.100	0.140	0.180	0.140			
D	FRACTION OF C FILLED (AREALLY)	0.300	0.500	0.700	0.500			
E	POTENTIAL HC AREA (MM ACRES)				0.034			
F	POROSITY	0.090	0.180	0.220	0.163			
G	HC SATURATION	0.550	0.750	0.900	0.733			
H	OIL RECOVERY FACTOR	0.100	0.150	0.200	0.150			
I	GAS RECOVERY FACTOR	0.550	0.720	0.800	0.690			
J	AVERAGE NET PAY (FEET)	10.0	23.0	30.0	21.000			
K	PROB OF HYDROCARBONS	0.080	0.150	0.200	0.143			
L	FRAC OF PORE VOL OIL BEARING	0.020	0.100	0.200	0.107			
M	POTENTIAL OIL AREA (MM ACRES)				0.001			
N	POTENTIAL GAS AREA (MM ACRES)				0.004			
O	GOR (MCF/BBL)	0.399	0.420	0.441	0.420			
P	FVF	1.227	1.239	1.251	1.239			
Q	GAS COMPRESSIBILITY FACTOR 'Z'	0.764	0.780	0.796	0.780			
R	GVF				0.279			
S	OIL IN PLACE (BBL/ACRE-FOOT)				749.7			
T	OIL RECOVERY (BBL/ACRE-FOOT)				112.5			
U	GAS IN PLACE (MCF/ACRE-FOOT)				1453.9			
V	RAW GAS RECOVERY (MCF/AC-FT)				1003.2			
W	MARKETABLE GAS REC (MCF/AC-FT)				938.0			
X	LIQUIDS YIELD (BBL/MMCF)	15.000	20.100	25.000	20.033			
Y	H2S CONTENT (FRAC)	0.000	0.000	0.000	0.000			
Z	CO2 CONTENT (FRAC)	0.010	0.015	0.020	0.015			
	GAS TO BOE CONVERSION FACTOR (MCF/BOE)		6.000					
	SURFACE LOSS (FUEL GAS, ETC)		0.050					
	MARKETABLE GAS (FRAC. OF RAW)		0.935					
	TOTAL FOR PLAY							
		<u>OIL</u>	<u>SOL GAS</u>	<u>NA GAS</u>	<u>TOT GAS</u>	<u>LIOS</u>	<u>BOE</u>	<u>MKT GAS</u>
		<u>MMB</u>	<u>BCF</u>	<u>BCF</u>	<u>BCF</u>	<u>MMB</u>	<u>MMBOE</u>	<u>BCF</u>
	<u>IN PLACE</u>	8.23		133.73	133.73		30.52	
	<u>RECOVERABLE</u>	1.24	0.52	92.28	92.79	1.85	18.55	86.80
	SULPHUR (MMLT)		0.00					

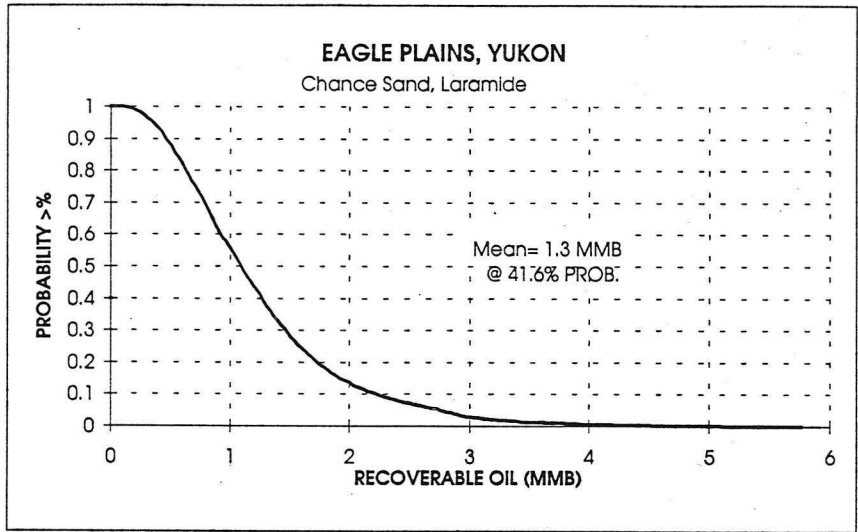
Simulation Results for CH\_LAR.XLS  
 Iterations= 2000  
 Output Range: REC OIL (MMB)  
 Cell: B6  
 Minimum= 0.1  
 Maximum= 5.8  
 Mean= 1.3  
 Std Deviation= 0.7  
 Prob. of Mean 41.6%  
 Mode= 0.8

EAGLE PLAINS, YUKON  
Chance Sand, Laramide  
PROPOSED PARK AREA

Mean= 1.3 MMB  
 @ 41.6% PROB.

Percentile Values

100%	0.0
95%	0.4
90%	0.5
85%	0.6
80%	0.6
75%	0.7
70%	0.8
65%	0.9
60%	0.9
55%	1.0
50%	1.1
45%	1.2
40%	1.3
35%	1.4
30%	1.5
25%	1.6
20%	1.7
15%	1.9
10%	2.2
5%	2.8
0%	0.0



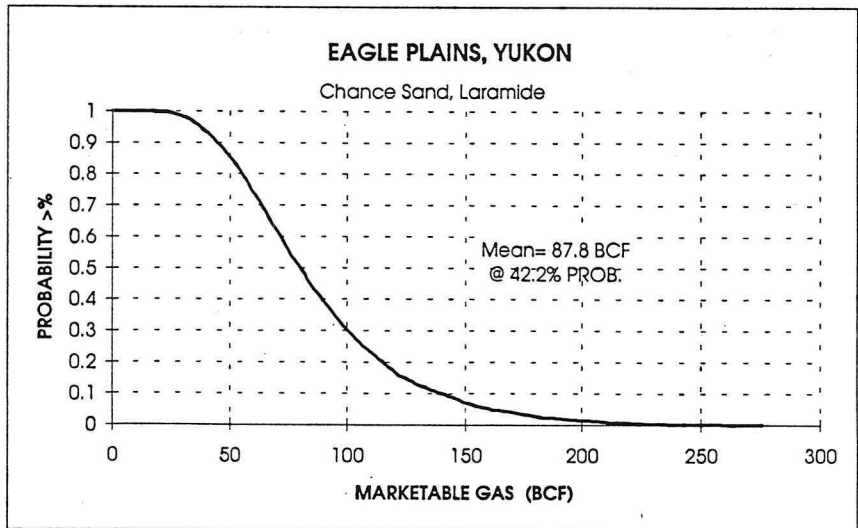
Simulation Results for CH\_LAR.XLS  
 Iterations= 2000  
 Output Range: MKT GAS (BCF)  
 Cell: B4  
 Minimum= 16.9  
 Maximum= 275.4  
 Mean= 87.8  
 Std Deviation= 38.7  
 Prob. of Mean 42.2%  
 Mode= 62.1

EAGLE PLAINS, YUKON  
Chance Sand, Laramide  
PROPOSED PARK AREA

Mean= 87.8 BCF  
 @ 42.2% PROB.

Percentile Values

100%	0.0
95%	37.9
90%	45.2
85%	51.1
80%	55.8
75%	60.0
70%	64.2
65%	68.2
60%	72.5
55%	76.2
50%	80.8
45%	85.1
40%	90.5
35%	95.2
30%	101.0
25%	107.8
20%	115.8
15%	125.0
10%	140.4
5%	161.1
0%	275.4



ESTIMATION OF UNDISCOVERED RESOURCES							
AREA/REGION		EAGLE PLAINS, YUKON		PROPOSED PARK AREA			
PLAY NAME		Chance Sand, Strat/Struct					
ESTIMATOR NAME		J. DAVIDSON					
OIL DEPTH		4200	GAS DEPTH		4200	(FEET)	
GAS: RESERVOIR TEMP (°F)		90	PRESSURE		4363	(PSI)	
		MINIMUM		MOST LIKELY		MAXIMUM MEAN	
A	TOTAL PLAY AREA (MM ACRES)	0.5400	0.5660	0.5900	0.565		
A'	TESTED PLAY AREA (MM ACRES)	0.066	0.066	0.066	0.066		
B	UNTESTED PLAY AREA (MM ACRES)	0.474	0.500	0.524	0.499		
C	FRACTION OF B IN TRAP	0.090	0.150	0.200	0.147		
D	FRACTION OF C FILLED (AREALLY)	0.500	0.700	0.900	0.700		
E	POTENTIAL HC AREA (MM ACRES)				0.051		
F	POROSITY	0.090	0.130	0.230	0.150		
G	HC SATURATION	0.500	0.550	0.750	0.600		
H	OIL RECOVERY FACTOR	0.150	0.300	0.400	0.283		
I	GAS RECOVERY FACTOR	0.600	0.750	0.900	0.750		
J	AVERAGE NET PAY (FEET)	20.0	50.0	100.0	56.667		
K	PROB OF HYDROCARBONS	0.150	0.250	0.350	0.250		
L	FRAC OF PORE VOL OIL BEARING	0.030	0.100	0.200	0.110		
M	POTENTIAL OIL AREA (MM ACRES)				0.001		
N	POTENTIAL GAS AREA (MM ACRES)				0.011		
O	GOR (MCF/BBL)	0.399	0.420	0.441	0.420		
P	FVF	1.227	1.239	1.251	1.239		
Q	GAS COMPRESSIBILITY FACTOR 'Z'	0.774	0.790	0.806	0.790		
R	GVF				0.041		
S	OIL IN PLACE (BBLS/ACRE-FOOT)				563.4		
T	OIL RECOVERY (BBLS/ACRE-FOOT)				159.6		
U	GAS IN PLACE (MCF/ACRE-FOOT)				159.3		
V	RAW GAS RECOVERY (MCF/AC-FT)				119.5		
W	MARKETABLE GAS REC (MCF/AC-FT)				109.0		
X	LIQUIDS YIELD (BBLS/MMCF)	25.000	36.000	45.000	35.333		
Y	H2S CONTENT (FRAC)	0.001	0.001	0.002	0.001		
Z	CO2 CONTENT (FRAC)	0.050	0.057	0.065	0.057		
	GAS TO BOE CONVERSION FACTOR (MCF/BOE)		6.000				
	SURFACE LOSS (FUEL GAS, ETC)		0.030				
	MARKETABLE GAS (FRAC. OF RAW)		0.912				
TOTAL FOR PLAY							
	<u>OIL</u>	<u>SOL GAS</u>	<u>NA GAS</u>	<u>TOT GAS</u>	<u>LIQS</u>	<u>BOE</u>	<u>MKT GAS</u>
	<u>MMB</u>	<u>BCF</u>	<u>BCF</u>	<u>BCF</u>	<u>MMB</u>	<u>MMBOE</u>	<u>BCF</u>
	IN PLACE	45.01	102.99	102.99		62.17	
	RECOVERABLE	12.75	5.36	77.25	2.73	29.25	75.80
	SULPHUR (MMLT)	0.00					

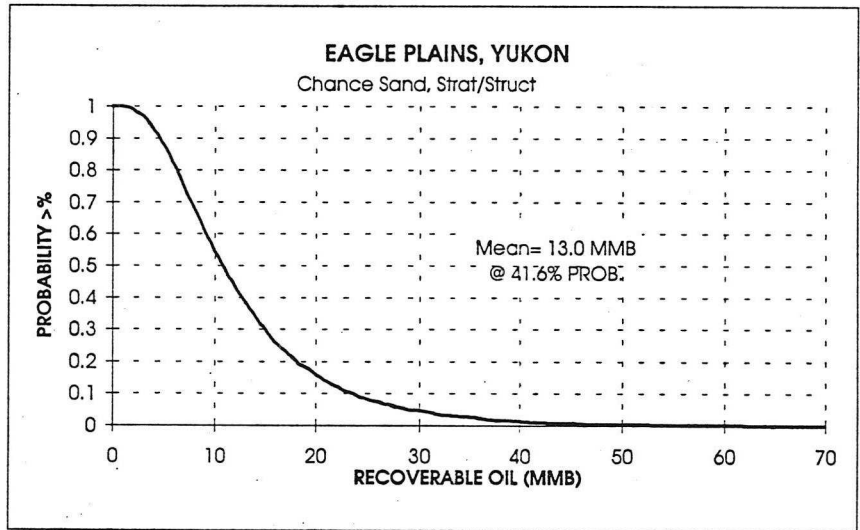
Simulation Results for CH\_S\_S.XLS  
 Iterations= 2000  
 Output Range: REC OIL (MMB)  
 Cell: B6  
 Minimum= 0.8  
 Maximum= 69.9  
 Mean= 13.0  
 Std Deviation= 8.4  
 Prob. of Mean 41.6%  
 Mode= 9.5

**EAGLE PLAINS, YUKON**  
Chance Sand, Strat/Struct  
**PROPOSED PARK AREA**

Mean= 13.0 MMB  
 @ 41.6% PROB.

Percentile Values

100%	0.0
95%	3.6
90%	4.7
85%	5.6
80%	6.4
75%	7.1
70%	7.8
65%	8.6
60%	9.3
55%	10.0
50%	11.0
45%	11.9
40%	12.9
35%	14.0
30%	15.2
25%	16.5
20%	18.2
15%	20.7
10%	23.8
5%	29.1
0%	0.0



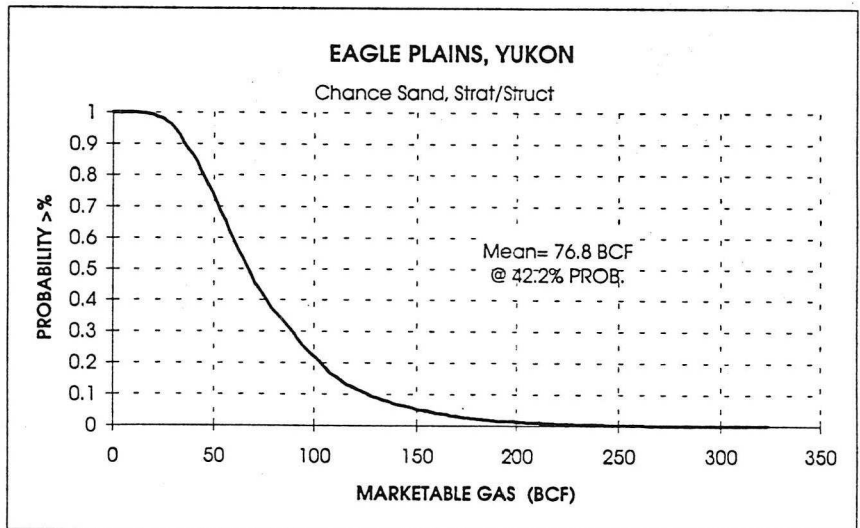
Simulation Results for CH\_S\_S.XLS  
 Iterations= 2000  
 Output Range: MKT GAS (BCF)  
 Cell: B4  
 Minimum= 13.1  
 Maximum= 323.9  
 Mean= 76.8  
 Std Deviation= 38.9  
 Prob. of Mean 42.2%  
 Mode= 51.9

**EAGLE PLAINS, YUKON**  
Chance Sand, Strat/Struct  
**PROPOSED PARK AREA**

Mean= 76.8 BCF  
 @ 42.2% PROB.

Percentile Values

100%	0.0
95%	30.8
90%	36.2
85%	41.6
80%	45.3
75%	49.4
70%	52.9
65%	56.8
60%	60.2
55%	63.6
50%	68.0
45%	71.7
40%	76.8
35%	83.2
30%	90.1
25%	96.1
20%	104.3
15%	113.0
10%	126.9
5%	150.7
0%	323.9



ESTIMATION OF UNDISCOVERED RESOURCES								
AREA/REGION		EAGLE PLAINS, YUKON			PROPOSED PARK AREA			
PLAY NAME		Chance Sand, Strat						
ESTIMATOR NAME		J. DAVIDSON						
OIL DEPTH		4200	GAS DEPTH		4200	(FEET)		
GAS: RESERVOIR TEMP (°F)		90	PRESSURE		4363	(PSI)		
MOST								
		MINIMUM	LIKELY	MAXIMUM	MEAN			
A	TOTAL PLAY AREA (MM ACRES)	0.5400	0.5660	0.5900	0.565			
A'	TESTED PLAY AREA (MM ACRES)	0.080	0.08	0.080	0.080			
B	UNTESTED PLAY AREA (MM ACRES)	0.460	0.486	0.510	0.485			
C	FRACTION OF B IN TRAP	0.300	0.500	0.800	0.533			
D	FRACTION OF C FILLED (AREALLY)	0.400	0.700	0.900	0.667			
E	POTENTIAL HC AREA (MM ACRES)				0.173			
F	POROSITY	0.060	0.070	0.100	0.077			
G	HC SATURATION	0.500	0.600	0.800	0.633			
H	OIL RECOVERY FACTOR	0.150	0.300	0.400	0.283			
I	GAS RECOVERY FACTOR	0.600	0.750	0.900	0.750			
J	AVERAGE NET PAY (FEET)	10.0	30.0	45.0	28.333			
K	PROB OF HYDROCARBONS	0.090	0.200	0.300	0.197			
L	FRAC OF PORE VOL OIL BEARING	0.080	0.150	0.200	0.143			
M	POTENTIAL OIL AREA (MM ACRES)				0.005			
N	POTENTIAL GAS AREA (MM ACRES)				0.029			
O	GOR (MCF/BBL)	0.399	0.420	0.441	0.420			
P	FVF	1.227	1.239	1.251	1.239			
Q	GAS COMPRESSIBILITY FACTOR 'Z'	0.774	0.790	0.806	0.790			
R	GVF				0.041			
S	OIL IN PLACE (BBL/ACRE-FOOT)				303.9			
T	OIL RECOVERY (BBL/ACRE-FOOT)				86.1			
U	GAS IN PLACE (MCF/ACRE-FOOT)				86.0			
V	RAW GAS RECOVERY (MCF/AC-FT)				64.5			
W	MARKETABLE GAS REC (MCF/AC-FT)				59.4			
X	LIQUIDS YIELD (BBL/MMCF)	20.000	28.000	35.000	27.667			
Y	H2S CONTENT (FRAC)	0.000	0.000	0.000	0.000			
Z	CO2 CONTENT (FRAC)	0.022	0.029	0.035	0.029			
	GAS TO BOE CONVERSION FACTOR (MCF/BOE)		6.000					
	SURFACE LOSS (FUEL GAS, ETC)		0.050					
	MARKETABLE GAS (FRAC. OF RAW)		0.921					
TOTAL FOR PLAY								
		OIL	SOL GAS	NA GAS	TOT GAS	LIOS	BOE	MKT GAS
		MMB	BCF	BCF	BCF	MMB	MMBOE	BCF
	IN PLACE	41.89		70.81	70.81		53.69	
	RECOVERABLE	11.87	4.98	53.11	58.10	1.47	23.02	53.90
	SULPHUR (MMLT)		0.00					

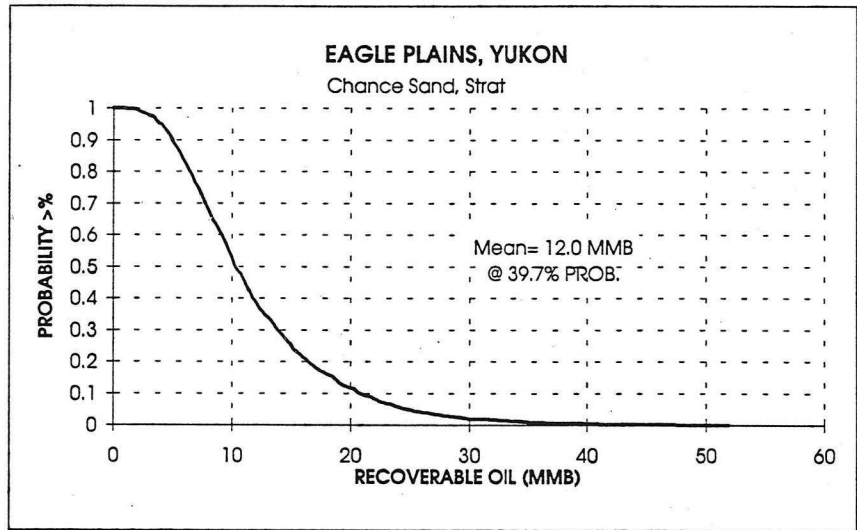
Simulation Results for CHST.XLS  
 Iterations= 2000  
 Output Range: REC OIL (MMB)  
 Cell: B6  
 Minimum= 1.1  
 Maximum= 52.0  
 Mean= 12.0  
 Std Deviation= 6.8  
 Prob. of Mean 39.7%  
 Mode= 10.0

**EAGLE PLAINS, YUKON**  
**Chance Sand, Strat**  
**PROPOSED PARK AREA**

Mean= 12.0 MMB  
 @ 39.7% PROB.

Percentile Values

100%	0.0
95%	4.1
90%	5.1
85%	5.8
80%	6.5
75%	7.2
70%	7.9
65%	8.5
60%	9.2
55%	9.9
50%	10.4
45%	11.2
40%	12.0
35%	12.9
30%	14.0
25%	15.2
20%	16.6
15%	18.7
10%	20.8
5%	24.7
0%	0.0



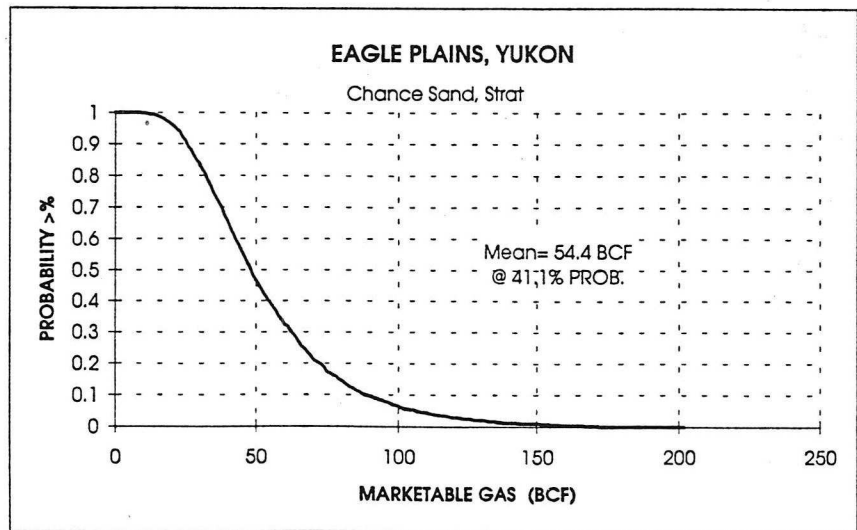
Simulation Results for CHST.XLS  
 Iterations= 2000  
 Output Range: MKT GAS (BCF)  
 Cell: B4  
 Minimum= 8.8  
 Maximum= 201.8  
 Mean= 54.4  
 Std Deviation= 27.1  
 Prob. of Mean 41.1%  
 Mode= 42.6

**EAGLE PLAINS, YUKON**  
**Chance Sand, Strat**  
**PROPOSED PARK AREA**

Mean= 54.4 BCF  
 @ 41.1% PROB.

Percentile Values

100%	0.0
95%	21.8
90%	25.7
85%	29.1
80%	32.6
75%	35.1
70%	38.1
65%	40.7
60%	43.2
55%	46.0
50%	48.6
45%	51.5
40%	55.2
35%	58.6
30%	63.2
25%	67.3
20%	73.1
15%	79.8
10%	88.9
5%	106.6
0%	201.8



ESTIMATION OF UNDISCOVERED RESOURCES							
AREA/REGION		EAGLE PLAINS, YUKON		PROPOSED PARK AREA			
PLAY NAME		Miss. Canoe River					
ESTIMATOR NAME		J. DAVIDSON					
OIL DEPTH		5100	GAS DEPTH		5100	(FEET)	
GAS: RESERVOIR TEMP (°F)		117	PRESSURE		3994	(PSI)	
MOST							
		MINIMUM	LIKELY	MAXIMUM	MEAN		
A	TOTAL PLAY AREA (MM ACRES)	0.5000	0.6100	0.6300	0.580		
A'	TESTED PLAY AREA (MM ACRES)	0.110	0.110	0.110	0.110		
B	UNTESTED PLAY AREA (MM ACRES)	0.390	0.500	0.520	0.470		
C	FRACTION OF B IN TRAP	0.020	0.100	0.300	0.140		
D	FRACTION OF C FILLED (AREALLY)	0.500	0.850	0.950	0.767		
E	POTENTIAL HC AREA (MM ACRES)				0.050		
F	POROSITY	0.030	0.065	0.150	0.082		
G	HC SATURATION	0.500	0.650	0.750	0.633		
H	OIL RECOVERY FACTOR	0.100	0.200	0.300	0.200		
I	GAS RECOVERY FACTOR	0.500	0.600	0.750	0.617		
J	AVERAGE NET PAY (FEET)	2.0	9.0	20.0	10.333		
K	PROB OF HYDROCARBONS	0.050	0.150	0.240	0.147		
L	FRAC OF PORE VOL OIL BEARING	0.040	0.100	0.150	0.097		
M	POTENTIAL OIL AREA (MM ACRES)				0.001		
N	POTENTIAL GAS AREA (MM ACRES)				0.007		
O	GOR (MCF/BBL)	0.485	0.510	0.536	0.510		
P	FVF	1.276	1.291	1.305	1.291		
Q	GAS COMPRESSIBILITY FACTOR 'Z'	0.833	0.850	0.867	0.850		
R	GVF				0.289		
S	OIL IN PLACE (BBLS/ACRE-FOOT)				310.9		
T	OIL RECOVERY (BBLS/ACRE-FOOT)				62.2		
U	GAS IN PLACE (MCF/ACRE-FOOT)				651.2		
V	RAW GAS RECOVERY (MCF/AC-FT)				401.6		
W	MARKETABLE GAS REC (MCF/AC-FT)				358.6		
X	LIQUIDS YIELD (BBLS/MMCF)	27.0	35.6	44.5	35.700		
Y	H2S CONTENT (FRAC)	0.0	0.0	0.0	0.000		
Z	CO2 CONTENT (FRAC)	0.020	0.057	0.100	0.059		
	GAS TO BOE CONVERSION FACTOR (MCF/BOE)		6.000				
	SURFACE LOSS (FUEL GAS, ETC)		0.050				
	MARKETABLE GAS (FRAC. OF RAW)		0.893				
TOTAL FOR PLAY							
	<u>OIL</u>	<u>SOL GAS</u>	<u>NA GAS</u>	<u>TOT GAS</u>	<u>LIOS</u>	<u>BOE</u>	<u>MKT GAS</u>
	<u>MMB</u>	<u>BCF</u>	<u>BCF</u>	<u>BCF</u>	<u>MMB</u>	<u>MMBOE</u>	<u>BCF</u>
	<u>IN PLACE</u>	2.30	44.98	44.98		9.79	
	<u>RECOVERABLE</u>	0.46	0.23	27.74	0.99	6.11	25.00
	SULPHUR (MMLT)		0.00				

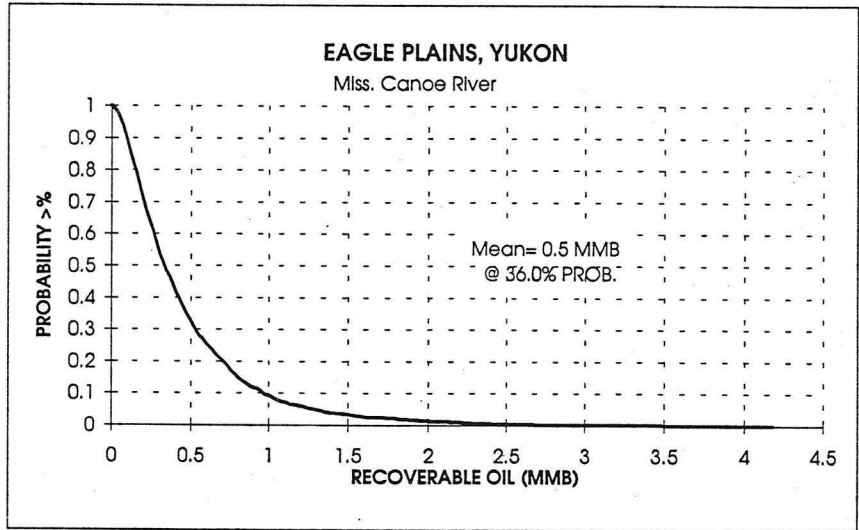
Simulation Results for CANOE.XLS  
 Iterations= 2000  
 Output Range: REC OIL (MMB)  
 Cell: B6  
 Minimum= 0.0  
 Maximum= 4.2  
 Mean= 0.5  
 Std Deviation= 0.4  
 Prob. of Mean 36.0%  
 Mode= 0.1

**EAGLE PLAINS, YUKON**  
Miss. Canoe River  
**PROPOSED PARK AREA**

Mean= 0.5 MMB  
 @ 36.0% PROB.

Percentile Values

100%	0.0
95%	0.1
90%	0.1
85%	0.1
80%	0.2
75%	0.2
70%	0.2
65%	0.2
60%	0.3
55%	0.3
50%	0.3
45%	0.4
40%	0.4
35%	0.5
30%	0.5
25%	0.6
20%	0.7
15%	0.8
10%	1.0
5%	1.3
0%	0.0



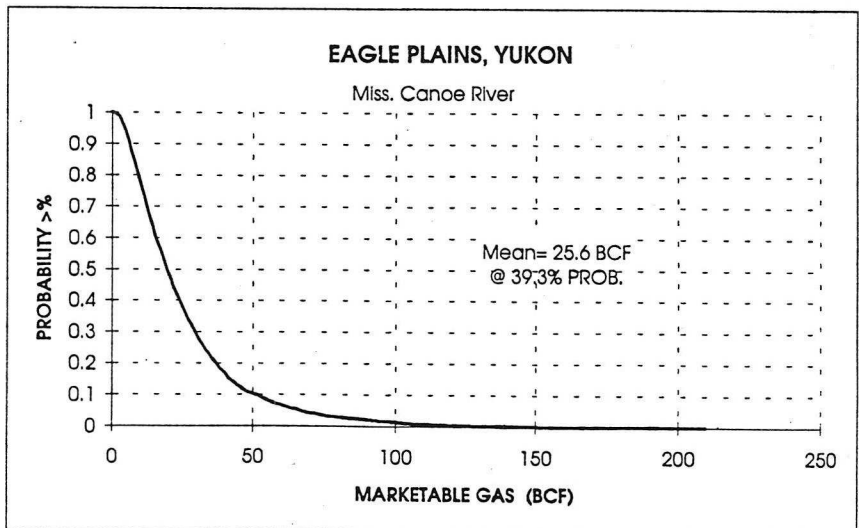
Simulation Results for CANOE.XLS  
 Iterations= 2000  
 Output Range: MKT GAS (BCF)  
 Cell: B4  
 Minimum= 0.9  
 Maximum= 209.4  
 Mean= 25.6  
 Std Deviation= 21.3  
 Prob. of Mean 39.3%  
 Mode= 16.6

**EAGLE PLAINS, YUKON**  
Miss. Canoe River  
**PROPOSED PARK AREA**

Mean= 25.6 BCF  
 @ 39.3% PROB.

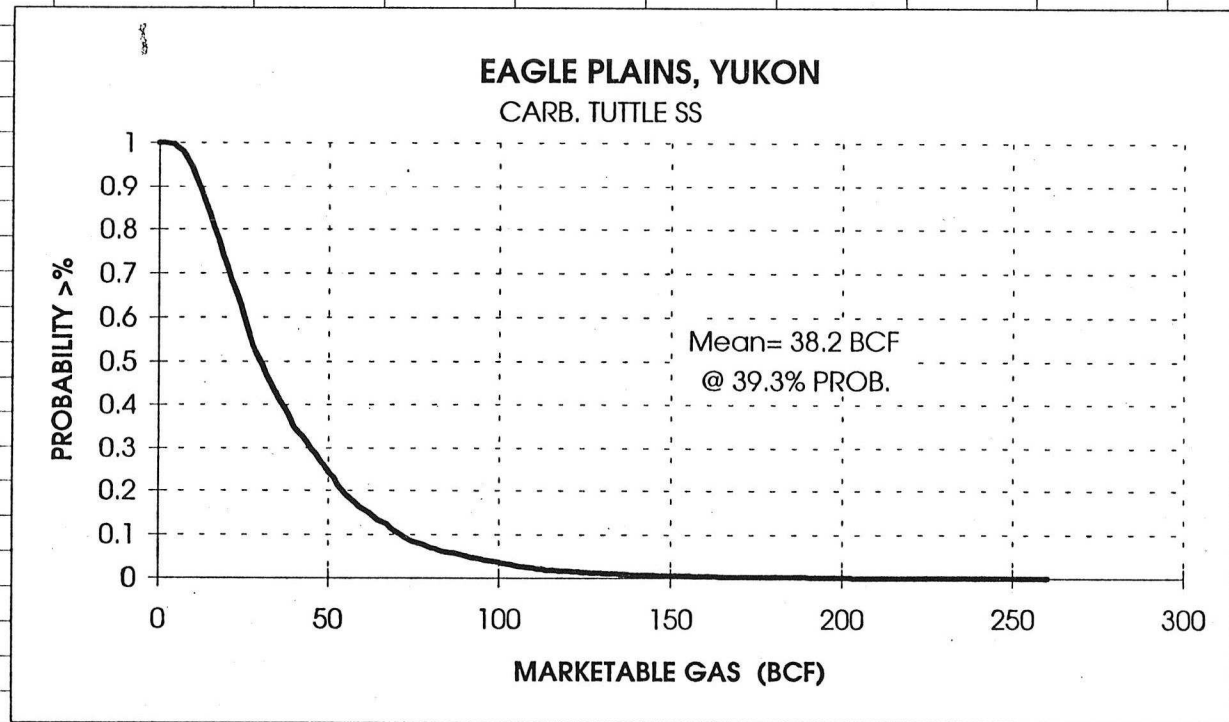
Percentile Values

100%	0.0
95%	4.9
90%	6.5
85%	8.1
80%	9.8
75%	11.1
70%	12.6
65%	14.1
60%	15.7
55%	17.8
50%	19.7
45%	21.7
40%	24.1
35%	26.7
30%	29.8
25%	32.7
20%	37.5
15%	42.1
10%	51.8
5%	67.1
0%	209.4



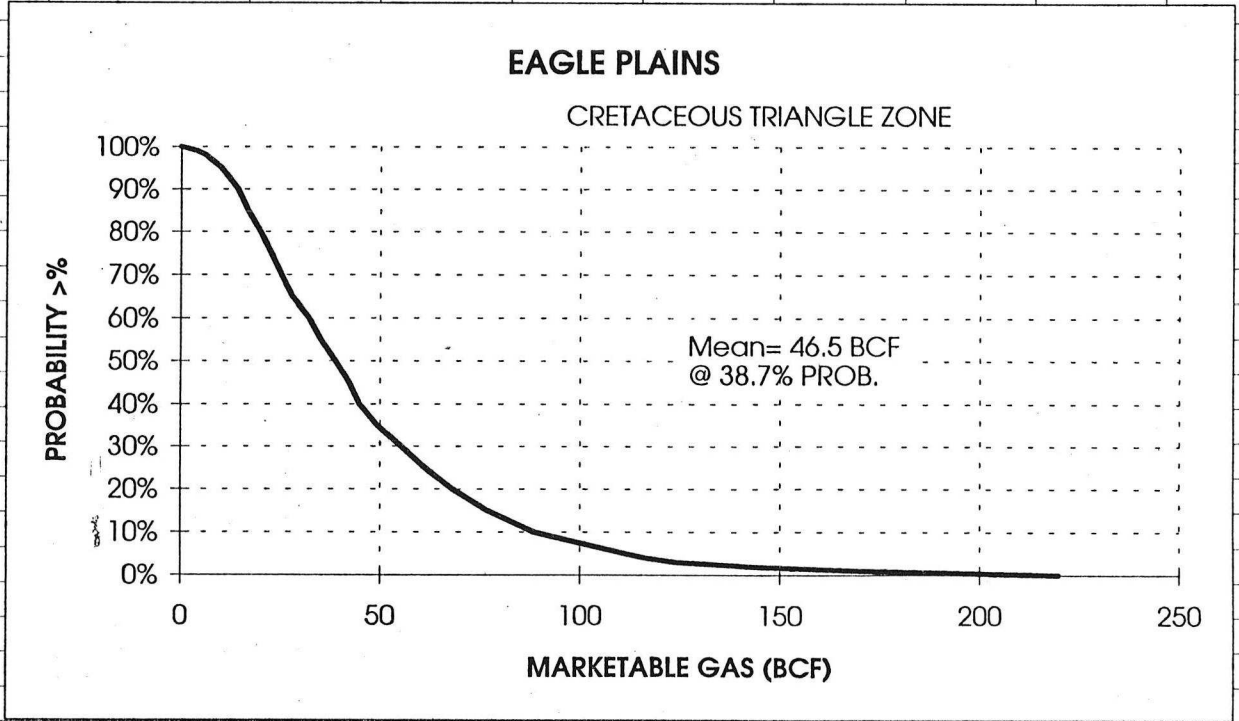
ESTIMATION OF UNDISCOVERED RESOURCES								
AREA/REGION		EAGLE PLAINS, YUKON		PROPOSED PARK AREA				
PLAY NAME		CARB. TUTTLE SS						
ESTIMATOR NAME		J. DAVIDSON						
OIL DEPTH		6160	GAS DEPTH		6160	(FEET)		
GAS: RESERVOIR TEMP (°F)		103	PRESSURE		4083	(PSI)		
		MOST						
		MINIMUM	LIKELY	MAXIMUM	MEAN			
A	TOTAL PLAY AREA (MM ACRES)	0.5000	1.2500	1.9000	1.217			
A'	TESTED PLAY AREA (MM ACRES)	0.120	0.120	0.120	0.120			
B	UNTESTED PLAY AREA (MM ACRES)	0.380	1.130	1.780	1.097			
C	FRACTION OF B IN TRAP	0.040	0.100	0.150	0.097			
D	FRACTION OF C FILLED (AREALLY)	0.250	0.400	0.550	0.400			
E	POTENTIAL HC AREA (MM ACRES)				0.042			
F	POROSITY	0.050	0.070	0.110	0.077			
G	HC SATURATION	0.600	0.800	0.900	0.767			
H	OIL RECOVERY FACTOR	0.100	0.200	0.300	0.200			
I	GAS RECOVERY FACTOR	0.550	0.650	0.750	0.650			
J	AVERAGE NET PAY (FEET)	4.0	13.0	25.0	14.000			
K	PROB OF HYDROCARBONS	0.040	0.100	0.250	0.130			
L	FRAC OF PORE VOL OIL BEARING	0.000	0.000	0.000	0.000			
M	POTENTIAL OIL AREA (MM ACRES)				0.000			
N	POTENTIAL GAS AREA (MM ACRES)				0.006			
O	GOR (MCF/BBL)	0.585	0.616	0.647	0.616			
P	FVF	1.334	1.351	1.369	1.351			
Q	GAS COMPRESSIBILITY FACTOR 'Z'	0.804	0.820	0.836	0.820			
R	GVF				0.314			
S	OIL IN PLACE (BBL/ACRE-FOOT)				337.5			
T	OIL RECOVERY (BBL/ACRE-FOOT)				67.5			
U	GAS IN PLACE (MCF/ACRE-FOOT)				803.8			
V	RAW GAS RECOVERY (MCF/AC-FT)				522.4			
W	MARKETABLE GAS REC (MCF/AC-FT)				490.4			
X	LIQUIDS YIELD (BBL/MMCF)	12.0	15.9	19.9	15.933			
Y	H2S CONTENT (FRAC)	0.000	0.000	0.020	0.007			
Z	CO2 CONTENT (FRAC)	0.005	0.011	0.020	0.012			
	GAS TO BOE CONVERSION FACTOR (MCF/BOE)		6.000					
	SURFACE LOSS (FUEL GAS, ETC)		0.050					
	MARKETABLE GAS (FRAC. OF RAW)		0.939					
	TOTAL FOR PLAY							
		<u>OIL</u>	<u>SOL GAS</u>	<u>NA GAS</u>	<u>TOT GAS</u>	<u>LIOS</u>	<u>BOE</u>	<u>MKT GAS</u>
		<u>MMB</u>	<u>BCF</u>	<u>BCF</u>	<u>BCF</u>	<u>MMB</u>	<u>MMBOE</u>	<u>BCF</u>
	<u>IN PLACE</u>	0.00		62.03	62.03		10.34	
	<u>RECOVERABLE</u>	0.00	0.00	40.32	40.32	0.64	7.36	37.85
	SULPHUR (MMLT)		0.01					

Simulation Results for TUTTLE.XLS		EAGLE PLAINS, YUKON	
Iterations=	2000	CARB. TUTTLE SS	
Output Range:	MKT GAS (BCF)	PROPOSED PARK AREA	
Cell:	B4		
Minimum=	3.1		
Maximum=	260.2		
Mean=	38.2		
Std Deviation=	27.0		
Prob. of Mean	39.28%		
Mode=	22.4	Mean= 38.2 BCF	
		@ 39.3% PROB.	
Percentile Values			
100%	0		
95%	10		
90%	13		
85%	15		
80%	17		
75%	19		
70%	21		
65%	24		
60%	26		
55%	28		
50%	31		
45%	34		
40%	37		
35%	40		
30%	45		
25%	50		
20%	55		
15%	63		
10%	72		
5%	91		
0%	260		



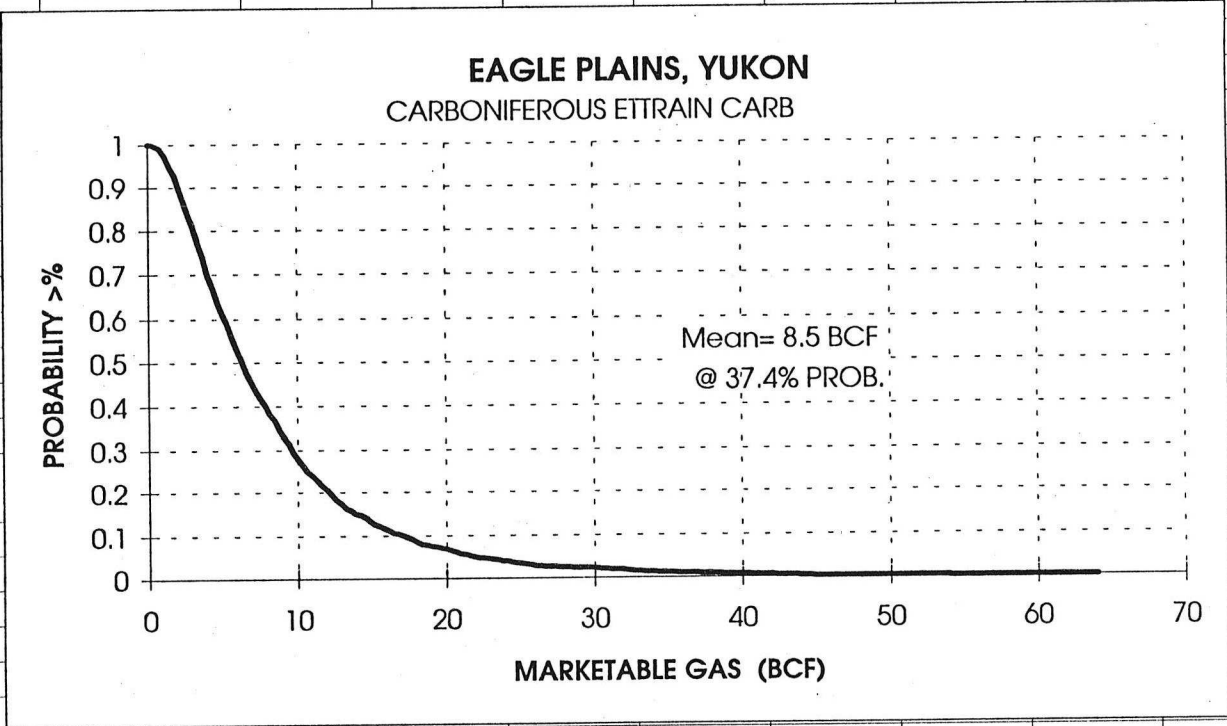
ESTIMATION OF UNDISCOVERED RESOURCES								
	<u>AREA/REGION</u>	EAGLE PLAINS						
	<u>PLAY NAME</u>	CRETACEOUS TRIANGLE ZONE						
	<u>ESTIMATOR NAME</u>	J. DAVIDSON						
	<u>OIL DEPTH</u>	4000	<u>GAS DEPTH</u>	4100	(FEET)			
	<u>GAS: RESERVOIR TEMP (F)</u>	100	<u>PRESSURE</u>	3500	(PSI)			
					MOST			
			<u>MINIMUM</u>	<u>LIKELY</u>	<u>MAXIMUM</u>	<u>MEAN</u>		
A	TOTAL PLAY AREA (MM ACRES)		0.3500	0.5400	1.0000	0.630		
A'	TESTED PLAY AREA (MM ACRES)		0.000	0.000	0.000	0.000		
B	UNTESTED PLAY AREA (MM ACRES)		0.350	0.540	1.000	0.630		
C	FRACTION OF B IN TRAP		0.030	0.100	0.200	0.110		
D	FRACTION OF C FILLED (AREALLY)		0.300	0.600	0.900	0.600		
E	POTENTIAL HC AREA (MM ACRES)					0.042		
F	POROSITY		0.050	0.120	0.220	0.130		
G	HC SATURATION		0.500	0.650	0.750	0.633		
H	OIL RECOVERY FACTOR		0.050	0.150	0.250	0.150		
I	GAS RECOVERY FACTOR		0.700	0.750	0.850	0.767		
J	AVERAGE NET PAY (FEET)		10.0	16.0	26.0	17.3		
K	PROB OF HYDROCARBONS		0.010	0.100	0.200	0.103		
L	FRAC OF PORE VOL OIL BEARING		0.000	0.000	0.000	0.000		
M	POTENTIAL OIL AREA (MM ACRES)					0.000		
N	POTENTIAL GAS AREA (MM ACRES)					0.004		
O	GOR (MCF/BBL)		0.380	0.400	0.420	0.400		
P	FVF		1.217	1.228	1.239	1.228		
Q	GAS COMPRESSIBILITY FACTOR 'Z'		0.882	0.900	0.918	0.900		
R	GVF					0.246		
S	OIL IN PLACE (BBL/ACRE-FOOT)					520.1		
T	OIL RECOVERY (BBL/ACRE-FOOT)					78.0		
U	GAS IN PLACE (MCF/ACRE-FOOT)					884.0		
V	RAW GAS RECOVERY (MCF/AC-FT)					677.8		
W	MARKETABLE GAS REC (MCF/AC-FT)					623.5		
X	LIQUIDS YIELD (BBL/MMCF)		4.0	5.1	6.4	5.2		
Y	H2S CONTENT (FRAC)		0.000	0.000	0.000	0.000		
Z	CO2 CONTENT (FRAC)		0.010	0.030	0.050	0.030		
	GAS TO BOE CONVERSION FACTOR (MCF/BOE)			6.000				
	SURFACE LOSS (FUEL GAS, ETC)			0.050				
	MARKETABLE GAS (FRAC. OF RAW)			0.920				
	TOTAL FOR PLAY							
		<u>OIL</u>	<u>SOL GAS</u>	<u>NA GAS</u>	<u>TOT GAS</u>	<u>LIQS</u>	<u>BOE</u>	<u>MKT GAS</u>
		<u>MMB</u>	<u>BCF</u>	<u>BCF</u>	<u>BCF</u>	<u>MMB</u>	<u>MMBOE</u>	<u>BCF</u>
	<u>IN PLACE</u>	0.00		65.84	65.84		10.97	
	<u>RECOVERABLE</u>	0.00	0.00	50.47	50.47	0.26	8.67	46.44
	SULPHUR (MMLT)		0.00					

Simulation Statistics		EAGLE PLAINS	
Date: 11/15/94 at 10:42		CRETACEOUS TRIANGLE ZONE	
Iterations: 500			
Simulations: 1			
Worksheet:	TRIANG.XLS		
Output Range:	MARKETABLE GAS (BCF)		
Cell:	\$I\$49		
Minimum=	2.0		
Maximum=	219.7		
Mean=	46.5	Mean= 46.5 BCF	
Std Deviation=	33.6	@ 38.7% PROB.	
Percentile Values			
100%	0		
95%	10		
90%	14		
85%	17		
80%	20		
75%	23		
70%	25		
65%	28		
60%	32		
55%	35		
50%	39		
45%	42		
40%	45		
35%	49		
30%	55		
25%	61		
20%	68		
15%	77		
10%	88		
5%	111		
0%	220		



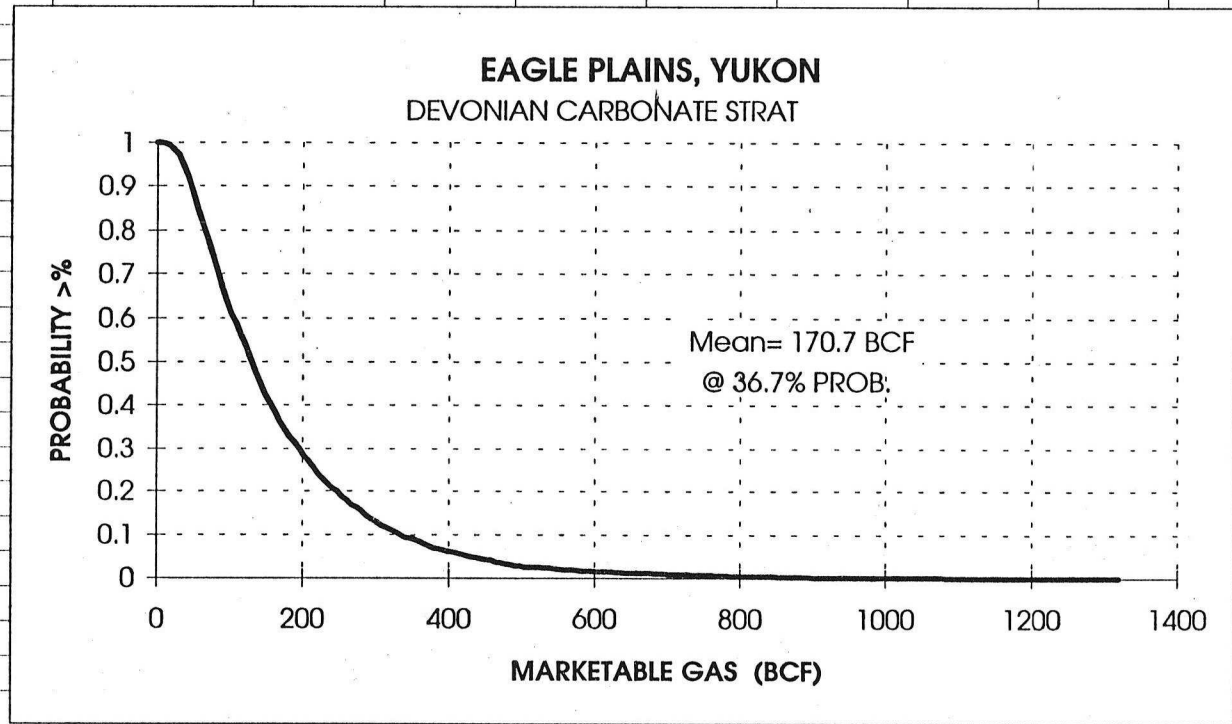
ESTIMATION OF UNDISCOVERED RESOURCES								
	<u>AREA/REGION</u>		EAGLE PLAINS, YUKON	<u>PROPOSED PARK AREA</u>				
	<u>PLAY NAME</u>		<b>CARBONIFEROUS ETTRAIN CARB</b>					
	<u>ESTIMATOR NAME</u>		J. DAVIDSON					
	<u>OIL DEPTH</u>		2500	<u>GAS DEPTH</u>	2500	(FEET)		
	<u>GAS: RESERVOIR TEMP (°F)</u>		75	<u>PRESSURE</u>	900	(PSI)		
				MOST				
			<u>MINIMUM</u>	<u>LIKELY</u>	<u>MAXIMUM</u>	<u>MEAN</u>		
A	TOTAL PLAY AREA (MM ACRES)		0.3700	0.4500	0.5000	0.440		
A'	TESTED PLAY AREA (MM ACRES)		0.052	0.052	0.052	0.052		
B	UNTESTED PLAY AREA (MM ACRES)		0.318	0.398	0.448	0.388		
C	FRACTION OF B IN TRAP		0.030	0.100	0.300	0.143		
D	FRACTION OF C FILLED (AREALLY)		0.300	0.600	0.800	0.567		
E	POTENTIAL HC AREA (MM ACRES)					0.032		
F	POROSITY		0.030	0.090	0.150	0.090		
G	HC SATURATION		0.550	0.600	0.700	0.617		
H	OIL RECOVERY FACTOR		0.100	0.200	0.300	0.200		
I	GAS RECOVERY FACTOR		0.650	0.750	0.850	0.750		
J	AVERAGE NET PAY (FEET)		5.0	20.0	50.0	25.000		
K	PROB OF HYDROCARBONS		0.020	0.080	0.150	0.083		
L	FRAC OF PORE VOL OIL BEARING		0.000	0.000	0.000	0.000		
M	POTENTIAL OIL AREA (MM ACRES)					0.000		
N	POTENTIAL GAS AREA (MM ACRES)					0.003		
O	GOR (MCF/BBL)		0.238	0.250	0.263	0.250		
P	FVF		1.135	1.143	1.150	1.143		
Q	GAS COMPRESSIBILITY FACTOR 'Z'		0.784	0.800	0.816	0.800		
R	GVF					0.075		
S	OIL IN PLACE (BBL/ACRE-FOOT)					376.9		
T	OIL RECOVERY (BBL/ACRE-FOOT)					75.4		
U	GAS IN PLACE (MCF/ACRE-FOOT)					180.4		
V	RAW GAS RECOVERY (MCF/AC-FT)					135.3		
W	MARKETABLE GAS REC (MCF/AC-FT)					127.2		
X	LIQUIDS YIELD (BBL/MMCF)		6.0	8.0	10.0	8.000		
Y	H2S CONTENT (FRAC)		0.0	0.0	0.0	0.000		
Z	CO2 CONTENT (FRAC)		0.005	0.010	0.020	0.012		
	GAS TO BOE CONVERSION FACTOR (MCF/BOE)			6.000				
	SURFACE LOSS (FUEL GAS, ETC)			0.050				
	MARKETABLE GAS (FRAC. OF RAW)			0.940				
	TOTAL FOR PLAY							
		<u>OIL</u>	<u>SOL GAS</u>	<u>NA GAS</u>	<u>TOT GAS</u>	<u>LIOS</u>	<u>BOE</u>	<u>MKT GAS</u>
		<u>MMB</u>	<u>BCF</u>	<u>BCF</u>	<u>BCF</u>	<u>MMB</u>	<u>MMBOE</u>	<u>BCF</u>
	<u>IN PLACE</u>	0.00		11.85	11.85		1.97	
	<u>RECOVERABLE</u>	0.00	0.00	8.89	8.89	0.07	1.55	8.35
	SULPHUR (MMLT)		0.00					

Simulation Results for ETRANGAS.XLS		EAGLE PLAINS, YUKON	
Iterations=	2000	CARBONIFEROUS ETTRAIN CARB	
Output Range:	MKT GAS (BCF)	PROPOSED PARK AREA	
Cell:	'(ETRANGAS.XLS)OUTPUT RANGES'IB4		
Minimum=	0.3		
Maximum=	64.0		
Mean=	8.5		
Std Deviation=	7.1		
Prob. of Mean	37.38%		
Mode=	5.1	Mean= 8.5 BCF	
		@ 37.4% PROB.	
Percentile Values			
100%	0		
95%	2		
90%	2		
85%	3		
80%	3		
75%	4		
70%	4		
65%	5		
60%	5		
55%	6		
50%	6		
45%	7		
40%	8		
35%	9		
30%	10		
25%	11		
20%	12		
15%	14		
10%	17		
5%	22		
0%	64		



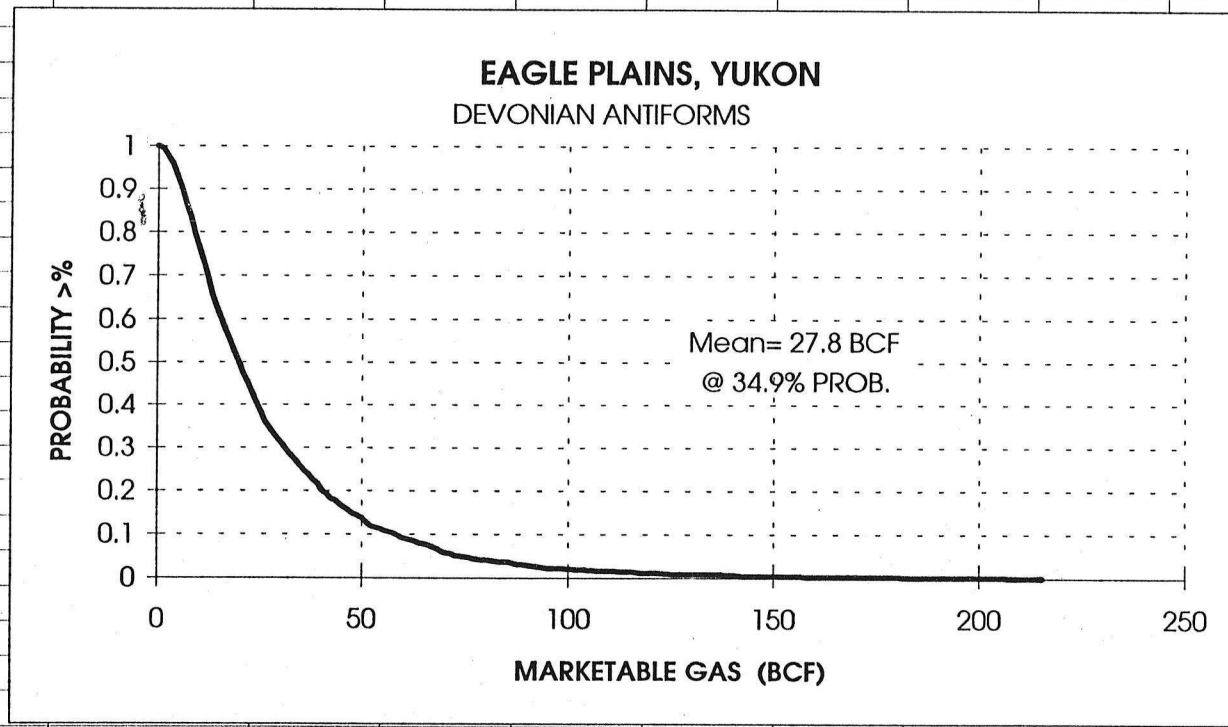
ESTIMATION OF UNDISCOVERED RESOURCES								
AREA/REGION		EAGLE PLAINS, YUKON <u>PROPOSED PARK AREA</u>						
PLAY NAME		DEVONIAN CARBONATE STRAT						
ESTIMATOR NAME		J. DAVIDSON						
OIL DEPTH		6200	GAS DEPTH		6200	(FEET)		
GAS: RESERVOIR TEMP (°F)		135	PRESSURE		4000	(PSI)		
		MOST						
		MINIMUM	LIKELY	MAXIMUM	MEAN			
A	TOTAL PLAY AREA (MM ACRES)	0.5000	1.0000	1.3000	0.933			
A'	TESTED PLAY AREA (MM ACRES)	0.210	0.210	0.210	0.210			
B	UNTESTED PLAY AREA (MM ACRES)	0.290	0.790	1.090	0.723			
C	FRACTION OF B IN TRAP	0.090	0.200	0.330	0.207			
D	FRACTION OF C FILLED (AREALLY)	0.200	0.500	0.700	0.467			
E	POTENTIAL HC AREA (MM ACRES)				0.070			
F	POROSITY	0.050	0.110	0.150	0.103			
G	HC SATURATION	0.600	0.700	0.800	0.700			
H	OIL RECOVERY FACTOR	0.100	0.200	0.300	0.200			
I	GAS RECOVERY FACTOR	0.600	0.700	0.800	0.700			
J	AVERAGE NET PAY (FEET)	10.0	25.0	100.0	45.000			
K	PROB OF HYDROCARBONS	0.050	0.100	0.200	0.117			
L	FRAC OF PORE VOL OIL BEARING	0.000	0.000	0.000	0.000			
M	POTENTIAL OIL AREA (MM ACRES)				0.000			
N	POTENTIAL GAS AREA (MM ACRES)				0.008			
O	GOR (MCF/BBL)	0.589	0.620	0.651	0.620			
P	FVF	1.336	1.353	1.371	1.353			
Q	GAS COMPRESSIBILITY FACTOR 'Z'	0.882	0.900	0.918	0.900			
R	GVF				0.265			
S	OIL IN PLACE (BBL/ACRE-FOOT)				414.6			
T	OIL RECOVERY (BBL/ACRE-FOOT)				82.9			
U	GAS IN PLACE (MCF/ACRE-FOOT)				835.4			
V	RAW GAS RECOVERY (MCF/AC-FT)				584.8			
W	MARKETABLE GAS REC (MCF/AC-FT)				538.0			
X	LIQUIDS YIELD (BBL/MMCF)	7.0	11.0	15.0	11.000			
Y	H2S CONTENT (FRAC)	0.001	0.010	0.020	0.010			
Z	CO2 CONTENT (FRAC)	0.002	0.020	0.050	0.024			
	GAS TO BOE CONVERSION FACTOR (MCF/BOE)		6.000					
	SURFACE LOSS (FUEL GAS, ETC)		0.050					
	MARKETABLE GAS (FRAC. OF RAW)		0.920					
	TOTAL FOR PLAY							
		<u>OIL</u>	<u>SOL GAS</u>	<u>NA GAS</u>	<u>TOT GAS</u>	<u>LIOS</u>	<u>BOE</u>	<u>MKT GAS</u>
		<u>MMB</u>	<u>BCF</u>	<u>BCF</u>	<u>BCF</u>	<u>MMB</u>	<u>MMBOE</u>	<u>BCF</u>
	<u>IN PLACE</u>	0.00		305.96	305.96		50.99	
	<u>RECOVERABLE</u>	0.00	0.00	214.17	214.17	2.36	38.05	197.04
	SULPHUR (MMLT)		0.08					

Simulation Results for DEVST.XLS		EAGLE PLAINS, YUKON	
Iterations=	2000	DEVONIAN CARBONATE STRAT	
Output Range:	MKT GAS (BCF)	PROPOSED PARK AREA	
Cell:	B4		
Minimum=	11.1		
Maximum=	1318.7		
Mean=	170.7		
Std Deviation=	135.8		
Prob. of Mean	36.67%		
Mode=	109.1	Mean= 170.7 BCF	
		@ 36.7% PROB.	
Percentile Values			
100%	0		
95%	39		
90%	49		
85%	58		
80%	69		
75%	79		
70%	87		
65%	96		
60%	108		
55%	122		
50%	133		
45%	146		
40%	161		
35%	176		
30%	199		
25%	220		
20%	250		
15%	287		
10%	337		
5%	430		
0%	1319		



ESTIMATION OF UNDISCOVERED RESOURCES								
	<u>AREA/REGION</u>		EAGLE PLAINS, YUKON	<u>PROPOSED PARK AREA</u>				
	<u>PLAY NAME</u>		<u>DEVONIAN ANTIFORMS</u>					
	<u>ESTIMATOR NAME</u>		J. DAVIDSON					
	<u>OIL DEPTH</u>		6200	<u>GAS DEPTH</u>	6300	(FEET)		
	<u>GAS: RESERVOIR TEMP (°F)</u>		138	<u>PRESSURE</u>	4500	(PSI)		
				MOST				
			<u>MINIMUM</u>	<u>LIKELY</u>	<u>MAXIMUM</u>	<u>MEAN</u>		
A	TOTAL PLAY AREA (MM ACRES)		0.4000	0.5500	1.0000	0.650		
A'	TESTED PLAY AREA (MM ACRES)		0.020	0.020	0.020	0.020		
B	UNTESTED PLAY AREA (MM ACRES)		0.380	0.530	0.980	0.630		
C	FRACTION OF B IN TRAP		0.050	0.100	0.150	0.100		
D	FRACTION OF C FILLED (AREALLY)		0.020	0.150	0.300	0.157		
E	POTENTIAL HC AREA (MM ACRES)					0.010		
F	POROSITY		0.050	0.110	0.150	0.103		
G	HC SATURATION		0.600	0.700	0.800	0.700		
H	OIL RECOVERY FACTOR		0.100	0.200	0.300	0.200		
I	GAS RECOVERY FACTOR		0.600	0.700	0.800	0.700		
J	AVERAGE NET PAY (FEET)		10.0	25.0	100.0	45.000		
K	PROB OF HYDROCARBONS		0.010	0.100	0.200	0.103		
L	FRAC OF PORE VOL OIL BEARING		0.000	0.000	0.000	0.000		
M	POTENTIAL OIL AREA (MM ACRES)					0.000		
N	POTENTIAL GAS AREA (MM ACRES)					0.001		
O	GOR (MCF/BBL)		0.589	0.620	0.651	0.620		
P	FVF		1.336	1.353	1.371	1.353		
Q	GAS COMPRESSIBILITY FACTOR 'Z'		0.882	0.900	0.918	0.900		
R	GVF					0.297		
S	OIL IN PLACE (BBL/ACRE-FOOT)					414.6		
T	OIL RECOVERY (BBL/ACRE-FOOT)					82.9		
U	GAS IN PLACE (MCF/ACRE-FOOT)					935.1		
V	RAW GAS RECOVERY (MCF/AC-FT)					654.6		
W	MARKETABLE GAS REC (MCF/AC-FT)					602.2		
X	LIQUIDS YIELD (BBL/MMCF)		7.0	11.0	15.0	11.000		
Y	H2S CONTENT (FRAC)		0.001	0.010	0.020	0.010		
Z	CO2 CONTENT (FRAC)		0.002	0.020	0.050	0.024		
	GAS TO BOE CONVERSION FACTOR (MCF/BOE)			6.000				
	SURFACE LOSS (FUEL GAS, ETC)			0.050				
	MARKETABLE GAS (FRAC. OF RAW)			0.920				
	TOTAL FOR PLAY							
		<u>OIL</u>	<u>SOL GAS</u>	<u>NA GAS</u>	<u>TOT GAS</u>	<u>LIOS</u>	<u>BOE</u>	<u>MKT GAS</u>
		<u>MMB</u>	<u>BCF</u>	<u>BCF</u>	<u>BCF</u>	<u>MMB</u>	<u>MMBOE</u>	<u>BCF</u>
	<u>IN PLACE</u>	0.00		42.92	42.92		7.15	
	<u>RECOVERABLE</u>	0.00	0.00	30.04	30.04	0.33	5.34	27.64
	SULPHUR (MLLT)		0.01					

Simulation Results for DEVANTIF.XLS		EAGLE PLAINS, YUKON DEVONIAN ANTIFORMS PROPOSED PARK AREA	
Iterations=	2000		
Output Range:	MKT GAS (BCF)		
Cell:	B4		
Minimum=	0.6		
Maximum=	215.3		
Mean=	27.8		
Std Deviation=	25.1		
Prob. of Mean	34.94%		
Mode=	16.7	Mean= 27.8 BCF	
		@ 34.9% PROB.	
Percentile Values			
100%	0		
95%	5		
90%	7		
85%	8		
80%	10		
75%	11		
70%	13		
65%	14		
60%	16		
55%	18		
50%	21		
45%	23		
40%	25		
35%	28		
30%	32		
25%	36		
20%	41		
15%	48		
10%	59		
5%	75		
0%	215		



ESTIMATION OF UNDISCOVERED RESOURCES							
AREA/REGION		EAGLE PLAINS, YUKON		PROPOSED PARK AREA			
PLAY NAME		ORD-SIL RONNING		CARB			
ESTIMATOR NAME		J. DAVIDSON					
OIL DEPTH		10000	GAS DEPTH		10900	(FEET)	
GAS: RESERVOIR TEMP (°F)		196	PRESSURE		4700	(PSI)	
		MOST					
		MINIMUM	LIKELY	MAXIMUM	MEAN		
A	TOTAL PLAY AREA (MM ACRES)	1.0000	1.7000	2.0000	1.567		
A'	TESTED PLAY AREA (MM ACRES)	0.100	0.100	0.100	0.100		
B	UNTESTED PLAY AREA (MM ACRES)	0.900	1.600	1.900	1.467		
C	FRACTION OF B IN TRAP	0.020	0.100	0.250	0.123		
D	FRACTION OF C FILLED (AREALLY)	0.100	0.300	0.500	0.300		
E	POTENTIAL HC AREA (MM ACRES)				0.054		
F	POROSITY	0.030	0.090	0.150	0.090		
G	HC SATURATION	0.550	0.600	0.700	0.617		
H	OIL RECOVERY FACTOR	0.100	0.200	0.300	0.200		
I	GAS RECOVERY FACTOR	0.650	0.750	0.850	0.750		
J	AVERAGE NET PAY (FEET)	5.0	20.0	100.0	41.667		
K	PROB OF HYDROCARBONS	0.020	0.100	0.200	0.107		
L	FRAC OF PORE VOL OIL BEARING	0.000	0.000	0.000	0.000		
M	POTENTIAL OIL AREA (MM ACRES)				0.000		
N	POTENTIAL GAS AREA (MM ACRES)				0.006		
O	GOR (MCF/BBL)	0.950	1.000	1.050	1.000		
P	FVF	1.542	1.570	1.599	1.570		
Q	GAS COMPRESSIBILITY FACTOR 'Z'	0.882	0.900	0.918	0.900		
R	GVF				0.283		
S	OIL IN PLACE (BBL/ACRE-FOOT)				274.2		
T	OIL RECOVERY (BBL/ACRE-FOOT)				54.8		
U	GAS IN PLACE (MCF/ACRE-FOOT)				683.1		
V	RAW GAS RECOVERY (MCF/AC-FT)				512.3		
W	MARKETABLE GAS REC (MCF/AC-FT)				429.8		
X	LIQUIDS YIELD (BBL/MMCF)	0.1	0.2	0.2	0.153		
Y	H2S CONTENT (FRAC)	0.0	0.0	0.0	0.000		
Z	CO2 CONTENT (FRAC)	0.070	0.111	0.150	0.110		
	GAS TO BOE CONVERSION FACTOR (MCF/BOE)		6.000				
	SURFACE LOSS (FUEL GAS, ETC)		0.050				
	MARKETABLE GAS (FRAC. OF RAW)		0.839				
TOTAL FOR PLAY							
		OIL	SOL GAS	NA GAS	TOT GAS	LIOS	BOE
		MMB	BCF	BCF	BCF	MMB	MMBOE
	IN PLACE	0.00		164.76	164.76		27.46
	RECOVERABLE	0.00	0.00	123.57	123.57	0.02	20.61
	SULPHUR (MMLT)		0.00				103.67

Simulation Results for RONNING.XLS		EAGLE PLAINS, YUKON	
Iterations=	2000	ORD-SIL RONNING CARB	
Output Range:	MKT GAS (BCF)	PROPOSED PARK AREA	
Cell:	B4		
Minimum=	2.2		
Maximum=	1009.0		
Mean=	105.2		
Std Deviation=	105.8		
Prob. of Mean	35.11%		
Mode=	27.4	Mean= 105.2 BCF	
		@ 35.1% PROB.	
Percentile Values			
100%	0		
95%	15		
90%	21		
85%	26		
80%	32		
75%	38		
70%	44		
65%	49		
60%	56		
55%	64		
50%	73		
45%	81		
40%	92		
35%	106		
30%	120		
25%	135		
20%	153		
15%	184		
10%	226		
5%	298		
0%	1009		

