

MICROFILMED
TO
HERE
June/79

VIRDEN-ROSELEA UNIT #1

TRACT PARTICIPATION

See Plan, Page 8

3.01 Tract participation of each tract is determined by adding one-half ($\frac{1}{2}$) of each of the following:

- (a) A Current Production Factor - calculated by dividing the oil production for the tract during the interval April 1st, 1964 to Sept. 30th, 1964, by the oil production for all the tracts during the same period, and multiplying by 100 to give it a percentage factor.
- (b) An average monthly oil production factor penalized for water production:
 - (i) Divide the cumulative oil production to Sept. 30, 1965, by the number of months since the well went on production.
 - (ii) Calculate a fractional water cut for the interval April 1st - Sept. 30th, 1964 (Divide the total water by total fluid produced).
 - (iii) Multiply the average monthly oil production found in (i) by the fraction 1 minus the water cut determined in (ii).
 - (iv) Divide the product obtained in (iii) (which is the average oil production penalized for water) by the sum of all the products obtained in (iii) for all the tracts and multiply by 100.

e.g. K & N 1-36-10-26 Tract

Effective date on Production	=	Dec. 1957
No. of months to Sept. 30, 1964	=	82
Cumulative Oil Production	=	6,791 (to Sept. 30, 1964)
Average monthly production	=	$\frac{6,791}{82} = 82.81707$

82

Current Production		
(April - Sept. 64) Oil	=	901 bbls.
Water	=	5,420
Total Fluid	=	6,321
% water Cut	=	$\frac{5,420}{6,321} \times 100 = 85.74593$

Water cut as a fraction = .8574593

Water penalty = 1 - water cut fraction = .1425407

$$\begin{array}{rcl} & \text{Average monthly production} & \times 1 - \text{water cut fraction} \\ = & 82.81707 & \times .1425407 \\ = & \underline{11.80480} & \end{array}$$

(a) Current Production Factor

$$\begin{array}{rcl} = & \underline{901} & \times 100 = .632844 \\ & * 142373 & \end{array}$$

* Sum of all Tracts - Current Oil Production

(b) Average monthly oil production penalized for water

$$\begin{array}{rcl} = & \underline{11.80480} & \times 100 = .068397 \\ & * 17259 & \end{array}$$

* Sum of all Tracts penalized for water

Tract participation is $\frac{1}{2}$ of (a) plus $\frac{1}{2}$ of (b)

$$\begin{array}{rcl} = & \frac{.632844}{2} & + \frac{.068397}{2} \\ = & \frac{.701241}{2} & = .3506205 \end{array}$$

Calstan Reports .35063 - See page 61 of Plan.

TRACT PARTICIPATION

PART III - page 8

PLAN FOR UNIT OPERATION

K & N 1-36-10-26

Effective date on production - December, 1957
No. of months to Sept. 30, 1964 - 82
Cumulative oil produced - 6791
Average monthly production = 82.81707
Current production
 (April - September, 1964) OIL = 901
 WATER = 5420
 T.F. = 6321
 % water cut = 85.74593
 = .8574593
 = .1425407
Water penalty = 1 - w/c = .1425407
Ave. monthly prod. x 1 - w/c = 82.81707 x .1425407 = 11.80480

(a) Monthly participation factor %

$$= \frac{11.80480}{* 17259} \times 100 = .068397$$

(* Sum of all tracts penalized for water)

(b) Current participation factor

$$= \frac{901}{* 142373} \times 100 = .632844$$

(* Sum of all tracts - current oil production)

 $\frac{1}{2}$ monthly participation = .03420 < (.034198)

$$\frac{1}{2} \text{ current participation} = .31642$$

$$\text{Total} = .35062$$

CALSTAN REPORTS .35062

TRACT PARTICIPATION

PART III - page 8

PLAN FOR UNIT OPERATIONSHANNON OILS 2-36-10-26

Effective date on production	-	October 1955
No. of months to Sept. 30, 1964	-	108
Last six months reporting production	-	June - Nov. 1959
Oil	=	962
Water	=	5138
T.F.	=	6100
% water cut	=	84.22951
water cut	=	84.22951
Cumulative oil produced	=	17507
Average monthly production $\frac{17507}{108}$	=	162.10185
Water penalty = 1 - water cut	=	.1577049
Ave. monthly x water penalty	=	25.56425
Sum of all tracts penalized for water	=	17,259 (rounded)

% Monthly participation factor $= \frac{25.56425}{17259}$	x 100 =	.14812
$\frac{1}{2}$ monthly	=	.07406

No current production	=	.00
Total participation	=	.07406

CALSTAN REPORTS 0.07406

DISTRIBUTION AND BEHAVIOUR OF OIL AND WATER IN MISSISSIPPIAN LIMESTONE RESERVOIRS, SOUTHEASTERN SASKATCHEWAN

By Ralph W. Edie

(14th Annual Technical Meeting, P & N.G. Division and
65th Annual General Meeting, C.I.M., Edmonton, April, 1963)

"In oil reservoirs, however (particularly those with solution gas drive), the maintenance of pressure gradients between tighter sections and carrier beds (or fractures) may not be as important to overall oil recovery as formerly thought. For example, early experimental work by Brownscombe and Dyes (5) showed that when chips from freshly cored oil-bearing sections of the Spraberry formation of west Texas (very fine-grained tight quartz sandstone containing numerous vertical fractures) were placed in water, drops of oil rapidly formed over the rock surface. This indicates that water was being imbibed into the rock displacing the oil to the exposed surface. The authors concluded that water injected into the Spraberry sandstone probably would follow the fracture network and thence be imbibed in part into the poorly permeable matrix blocks, expelling oil into the fractures where it could be recovered in the producing wells. The success of water-flooding programmes in Spraberry sandstone fields, as pointed out by Graham and Richardson (10) substantiated the importance of imbibition in secondary recovery. Furthermore, recent successful application of water-flooding to many fractured limestone oil reservoirs (including the Mississippian Midale limestone at Steelman field, southeastern Saskatchewan) is also attributable to this phenomenon because the tendency for water to channel along fractures to producing wells is partly offset by the imbibition process."

DEPARTMENT OF MINES
& NATURAL RESOURCES

APR - 1 1965

PETROLEUM ENGINEERING

ALBERTA DIVISION

THE CALIFORNIA STANDARD COMPANY

MEDICAL ARTS BUILDING, 329A - 6TH AVENUE S.W., CALGARY

A. B. BRISTOW, JR.
VICE-PRESIDENT
PRODUCING

March 26, 1965.

The Oil and Natural Gas Conservation Board,
Department of Mines and Natural Resources,
Province of Manitoba,
WINNIPEG 1, Manitoba.

Attention: Mr. J.G. Cowan,
Chairman

DEPARTMENT OF MINES
& NATURAL RESOURCES

MAR 29 1965

DIRECTOR OF MINES

Dear Sir:

Re: Proposal for Unitization - Virden-
Roselea Field

You will recall that during the hearing of our Application for unitization of the Virden-Roselea Field held in Virden on February 18, concern was expressed over the charges that might be made by The California Standard Company for disposing of Unit salt water production in The California Standard Company's wholly owned well, Virden S.W.D. 2-26-10-26.

Please be advised that The California Standard Company's position is as stated by our witnesses at the Hearing, namely, that if and when any Unit salt water is offered for disposal at The California Standard Company's 2-26 well our disposal charges will be at cost.

Yours very truly,

A. B. BRISTOW, Jr.

SAM:ys

Orig. to: Mr. J. G. Cowan, Q.C., Chairman.
p. c. to: Mr. M. J. Gebert, ~~ADMINISTRATIVE~~ Member.
Mr. J. S. Richards, Deputy Chairman.
Mr. F. S. Gamey, Reservoir Geologist.

INTER-DEPARTMENTAL MEMORANDUM

FROM J. G. Cowan,
Chairman,
The Oil and Natural Gas Conservation
Board.



PROVINCE
OF
MANITOBA

DATE March 25, 1965 APR - 1 1965

TO Mr. J. S. Richards,
Director of Mines,
Norquay Building.

DEPARTMENT OF MINES
& NATURAL RESOURCES

PETROLEUM ENGINEERING
DIVISION

Re: Proposal for Unitization - Virden-Eoselea Field

DEPARTMENT OF MINES
& NATURAL RESOURCES

MAR 26 1965

DIRECTOR OF MINES

I am enclosing herewith a copy of a letter which I have received from Mr. A. B. Bristow, Jr., Vice-President, of California Standard.

The undertaking may well satisfy some of the companies but appears to me to be somewhat evasive in that the statement is "our disposal charges will be based on cost". Under this, it seems to me, that the charges could well exceed costs notwithstanding the fact that they were based on cost.

My understanding was that some of the objectors were endeavouring to sign up individuals in opposition to the scheme but I have no information regarding their success, or otherwise, in this connection.

Sofar as the Board is concerned, how does the matter stand at the present time? Does California expect us to proceed or are we to await further developments?

J. G. Cowan.

JGC/mr
Enc.

c.c. - Mr. M. J. Gobert.

p. c. to: Mr. F. S. Gamey,
Reservoir Geologist.

MEDICAL ARTS BUILDING, 329A - 6TH AVENUE S.W., CALGARY, ALBERTA.

A. B. ERISTHI, JR.
Vice President
P.O. Box 1000

March 22,

DEPARTMENT OF MINES
& NATURAL RESOURCES

APR- 1 1955

PETROLEUM ENGINEERING
DIVISION

The Oil and Natural Gas Conservation Board,
Department of Mines and Natural Resources,
Province of Manitoba,
WINNIPEG 1, Manitoba.

Attention: Mr. J.G. Cowan,
Chairman

Dear Sir:

Re: Proposal for Utilization - Virden-
Rosalia Field

You will recall that during the hearing of our Application for
utilization of the Virden-Rosalica Field held in Virden on
February 18, concern was expressed over the charges that might
be made by The California Standard Company for disposal of
Unit salt water production in The California Standard Company's
wholly owned well, Virden S.W.D. 2-26-10-25.

Please be advised that The California Standard Company's position
is as stated by our witnesses at the Hearing, namely, that if and
when any Unit salt water is offered for disposal at The California
Standard Company's 2-26 well our disposal charges will be based on
cost.

Yours very truly,

A. B. ERISTHI, Jr.

p. c. to: Mr. F. S. Ganey,
Reservoir Geologist.

SA:mys

Well Number	Cumulative Production to 9/30/64	April to September/64 Water Cut %	April to September/64 Production	$\frac{1}{2}$ Penalized Average Monthly Participation	$\frac{1}{2}$ Current Participation	Tract Factor
<u>Calstan</u>						
9 - 24	6,254	42.75000		.10805		.10805
10 - 24	10,858	94.72081	624	.01730	.21914	.23644
11 - 24	24,265	72.61036	788	.17192	.27674	.44865
12 - 24	28,298	59.68992	364	.26868	.12783	.39651
13 - 24	40,176	27.59857	1,818	.66882	.63846	1.30728
14 - 24	43,026	29.66396	1,214	.74301	.42635	1.16935
15 - 24	52,348	52.95049	2,081	.60470	.73083	1.33552
16 - 24	80,962	49.63092	3,480	1.00978	1.22214	2.23192
1 - 25	55,635	70.35472	1,964	.40840	.68974	1.09813
2 - 25	63,918	40.29545	1,455	.91371	.51098	1.42470
3 - 25	68,896	20.26612	1,558	1.30450	.54715	1.85165
4 - 25	58,492	78.82116	1,157	.29178	.40633	.69811
5 - 25	44,989	30.47235	1,207	.79492	.42389	1.21881
6 - 25	88,218	80.08995	2,302	.42054	.80844	1.22898
7 - 25	83,812	30.45326	1,473	1.40724	.51730	1.92454
8 - 25	93,101	54.44023	6,849	1.03265	2.40530	3.43795
9 - 25	57,172	47.56184	742	.72988	.26058	.99046
10 - 25	68,371	21.54617	1,096	1.29500	.38490	1.67990
11 - 25	78,085	12.65938	959	1.66036	.33679	1.99715
12 - 25	107,262	40.20173	2,490	1.61585	.87446	2.49032
13 - 25	88,770	68.42601	1,005	.71859	.35295	1.07154
14 - 25	44,708	19.46375	811	.89926	.28482	1.18407
15 - 25	44,287	41.30879	1,435	.64362	.50396	1.14758
16 - 25	31,624	55.68247	776	.34409	.27253	.61662
1 - 26	6,936	83.43313	0	.02870		.02870
7 - 26	72,547	92.27978	936	.14359	.32871	.47231
8 - 26	78,436	96.85498	761	.06269	.26726	.32995
4 - 28	26,004	23.45374	1,547	.66284	.54329	1.20613
5 - 28	1,611	88.50656	0	.00617		.00617
1 - 29	44,927	18.67200	3,454	1.21673	1.21301	2.42974
2 - 29	35,541	45.25494	2,244	.64792	.78807	1.43599
3 - 29	93,602	30.11285	3,725	2.16900	1.30818	3.47719
4 - 29	116,981	39.80722	6,307	2.24173	2.21496	4.45669
5 - 29	70,961	66.30421	5,392	.76969	1.89362	2.66331
6 - 29	32,545	64.66513	2,142	.37018	.75225	1.12243
7 - 29	24,317	71.51842	951	.22801	.33398	.56199
8 - 29	50,035	81.35848	3,598	.31421	1.26358	1.57779
12 - 29	20,384	74.43466	1,481	.17156	.52011	.69168
Total Calstan	2,038,354		70,186	27.10567	24.64863	51.75430

$$S \text{ (current)} = 142,373$$

$$S \text{ (monthly)} = 17,259$$

<u>Well Number</u>	<u>Cumulative Production to 9/30/64</u>	<u>April to September/64 Water Cut %</u>	<u>April to September/64 Production</u>	<u>$\frac{1}{2}$ Penalized Average Monthly Participation</u>	<u>$\frac{1}{2}$ Current Participation</u>	<u>Tract Factor</u>
<u>Canadian Export Gas and Oil Ltd.</u>						
1 - 30	61,034	27.90412 ^	2,346	1.30083	.82389	2.12473
2 - 30	35,917	38.52676 ^	1,160	.57627	.40738	.98366
3 - 30	28,680	45.09934 ^	829	.39667	.29114	.68780
4 - 30	45,945	28.15647 ^	1,855	.82439	.65146	1.47585
5 - 30	51,620	26.93861 ^	1,809	.92595	.63530	1.56126
6 - 30	67,863	27.43225 ^	3,267	1.22994	1.14734	2.37728
7 - 30	66,330	35.98171 ^	2,240	1.06975	.78667	1.85641
8 - 30	39,173	44.43396 ^	1,767	.60636	.62056	1.22691
9 - 30	98,071	20.05306 ^	3,616	2.18411	1.26990	3.45401
10 - 30	99,126	17.57214 ^	5,113	2.11353	1.79563	3.90917
11 - 30	51,259	35.37448 ^	2,649	.84930	.93030	1.77960
12 - 30	47,232	36.09732 ^	1,287	.74104	.45198	1.19302
15 - 30	12,697	49.90826 ^	546	.17889	.19175	.37064
13 Total CEGO	704,947		28,484	12.99703	10.00330	23.00034

Continental Leaseholds Ltd.

11 - 21	18,950	9.28355 ^	3,596	1.03758	1.26288	2.30045
12 - 21	18,351	9.29993 ^	2,770	.87674	.97280	1.84954
13 - 21	23,788	10.41520 ^	3,819	1.18728	1.34119	2.52848
Total Continental	61,089		10,185	3.10160	3.57688	6.67847

Frontenac Petroleum Co. Ltd.

5 - 21	2,676	89.05775 ^	324	.03030	.11379	.14408
6 - 21	10,822	41.15556 ^	1,324	.42905	.46498	.89403
7 - 21	12,267	35.98015 ^	1,290	.55492	.45303	1.00796
10 - 21	13,753	18.47826 ^	1,350	.69110	.47411	1.16520
Total Frontenac	39,518		4,288	1.70537	1.50591	3.21127

K & N Oil Development

1 - 36	6,791	85.74593 ^	901	.03420	.31642	.35062
Total K & N	6,791		901	.03420	.31642	.35062

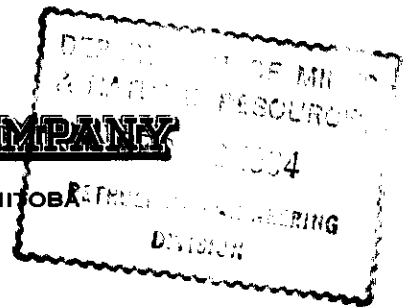
Well Number	Cumulative Production to 9/30/64	April to September/64 Water Cut %	April to September/64 Production	$\frac{1}{2}$ Penalized Average Monthly Participation	$\frac{1}{2}$ Current Participation	Tract Factor
<u>Kranz Oil Ltd.</u>						
8 - 20	2,976	78.85802 \wedge	137	.03506 <i>3509</i>	.04811 \wedge	.08317
9 - 20	13,458	77.11712 \wedge	508	.15652 <i>15652</i>	.17841	.33493
15 - 20	29,765	48.91304 \wedge	2,397	.71054	.84180	1.55234
16 - 20	26,496	55.85875 \wedge	1,925	.55547	.67604	1.23151
Total						
Kranz	72,695		4,967	1.45759	1.74436	3.20195
<u>Rundle Petroleums Ltd.</u>						
9 - 26	53,562	88.90515 \wedge	1,213	.14971	.42599	.57570
10 - 26	52,338	95.13777 \wedge	1,454	.06411	.51063	.57474
15 - 26	32,700	68.74754 \wedge	1,587	.26435	.55734	.82169
16 - 26	41,479	94.06547 \wedge	1,559	.06201	.54751	.60952
Total						
Rundle	180,079		5,813	.54018	2.04147	2.58165
<u>Shannon Oils Ltd.</u>						
2 - 36	17,507	84.22951 \wedge	-	.07406		.07406
Total						
Shannon	17,507			.07406		.07406
<u>Sun Oil Company</u>						
11 - 20	21,893	85.75962 \wedge	359	.10264	.12608	.22872
12 - 20	4,925	91.43886 \wedge		.01388		.01388
13 - 20	51,620	73.09239 \wedge	5,621	.43269	1.97404	2.40673
14 - 20	52,070	46.21599 \wedge	1,265	.89159	.44425	1.33584
Total						
Sun	130,508		7,245	1.44080	2.54437	3.98517
<u>Tech Corporation Ltd.</u>						
9 - 23	25,135	87.12395 \wedge	535	.07879	.18788 \wedge	.26668 \wedge
10 - 23	102,619	68.75523 \wedge	4,109	.76769	1.44304	2.21073
15 - 23	80,368	75.99967 \wedge	2,905	.46959	1.02021	1.48980
16 - 23	54,255	81.33469 \wedge	2,755	.22743	.96753	1.19496
Total						
Tech	262,377		10,304	1.54350	3.61866	5.16217
Total	3,513,865		142,373	50.00000	50.00000	100.00000
All Tracts						



THE CALIFORNIA STANDARD COMPANY

7TH AVENUE & RAGLAN STREET • VIRDEN, MANITOBA

MAILING ADDRESS: P.O. BOX 100



December 1, 1964.

Mines Branch,
P.O. Box 42,
Legislative Building,
WINNIPEG 1, Manitoba.

Attention: Mr. J. S. Richards,
Director of Mines

Dear Sir:

Re: Virden Roselea Unit No. 1
Participation Factors

Attached please find a tabulation by well of the date on production and the number of months on production to September, 1964, inclusive, as per your request.

Please be advised that we have located an error in the number of months on production for 1-26-10-26. The corrected number is shown on the attached tabulation.

Yours very truly,
The California Standard Company,

C. F. KIRKVOLD,
District Superintendent.

PP/as

Attach.

*Copy - Mr. J. S. Richards
1964 Dec 10*

<u>Tract Number</u>	<u>Date On Production</u>	<u>Months on Production to Sept./64 Inclusive</u>
<u>Calstan</u>		
9 - 24	October, 1956	96 ✓
10 - 24	October, 1956	96 ✓
11 - 24	June, 1955	112 ✓
12 - 24	July, 1954	123 ✓
13 - 24	April, 1954	126 ✓
14 - 24	December, 1954	118 ✓
15 - 24	December, 1954	118 ✓
16 - 24	January, 1955	117 ✓
1 - 25	January, 1955	117 ✓
2 - 25	September, 1954	121 ✓
3 - 25	August, 1954	122 ✓
4 - 25	July, 1954	123 ✓
5 - 25	April, 1955	114 ✓
6 - 25	September, 1954	121 ✓
7 - 25	October, 1954	120 ✓
8 - 25	November, 1954	119 ✓
9 - 25	November, 1954	119 ✓
10 - 25	October, 1954	120 ✓
11 - 25	November, 1954	119 ✓
12 - 25	March, 1955	115 ✓
13 - 25	May, 1955	113 ✓
14 - 25	February, 1955	116 ✓
15 - 25	January, 1955	117 ✓
16 - 25	December, 1954	118 ✓
1 - 26	April, 1954	126 (Used 116 - Error)
7 - 26	May, 1955	113 ✓
8 - 26	April, 1955	114 ✓
4 - 28	July, 1957	87 ✓
5 - 28	July, 1957	87 ✓
1 - 29	July, 1957	87 ✓
2 - 29	July, 1957	87 ✓
3 - 29	July, 1957	87 ✓
4 - 29	March, 1957	91 ✓
5 - 29	April, 1957	90 ✓
6 - 29	April, 1957	90 ✓
7 - 29	June, 1957	88 ✓
8 - 29	August, 1957	86 ✓
12 - 29	June, 1957	88 ✓
<u>CEGO</u>		
1 - 30	August, 1956	98 ✓
2 - 30	July, 1955	111 ✓
3 - 30	March, 1955	115 ✓
4 - 30	February, 1955	116 ✓
5 - 30	December, 1954	118 ✓
6 - 30	February, 1955	116 ✓

<u>Tract Number</u>	<u>Date On Production</u>	<u>Months on Production to Sept./64 Inclusive</u>
7 - 30	March, 1955	115 ✓
8 - 30	February, 1956	104 ✓
9 - 30	February, 1956	104 ✓
10 - 30	June, 1955	112 ✓
11 - 30	May, 1955 — Feb 55	113 ✓ 116
12 - 30	December, 1954	118 ✓
15 - 30	March, 1956	103 ✓

Continental

11 - 21	October, 1960	48 ✓
12 - 21	March, 1960	55 ✓
13 - 21	June, 1960	52 ✓

Frontenac

5 - 21	June, 1962	28 ✓
6 - 21	March, 1961	43 ✓
7 - 21	May, 1961 — Effective June 6	41 ✓ 40
10 - 21	November, 1960	47 ✓

K & N

1 - 36	December, 1957	82 ✓
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Kranz

8 - 20	June, 1960	52 ✓
9 - 20	January, 1960	57 ✓
15 - 20	August, 1959	62 ✓
16 - 20	September, 1959	61 ✓

Rundle

9 - 26	March, 1955	115 ✓
10 - 26	March, 1955	115 ✓
15 - 26	June, 1955	112 ✓
16 - 26	March, 1955	115 ✓

Shannon

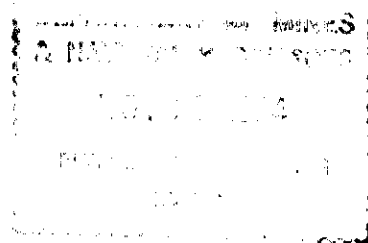
2 - 36	October, 1955	108 ✓
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Sun

11 - 20	June, 1957	88 ✓
12 - 20	June, 1957	88 ✓
13 - 20	January, 1957	93 ✓
14 - 20	March, 1957	91 ✓

<u>Tract Number</u>	<u>Date On Production</u>	<u>Months on Production to Sept./64 Inclusive</u>
<u>Teck</u>		
9 - 23	November, 1954	119 ✓
10 - 23	September, 1954	121 ✓
15 - 23	November, 1954	119 ✓
16 - 23	January, 1954	129 ✓

COPY



November 27, 1964.

Mr. S. A. McCrae,
Chairman, Legal Committee,
Virden Rosales Unit No. 1,
The California Standard Company,
329A - 6 Av., S.W.,
Calgary,
Alberta.

Dear Mr. McCrae:

Mr. Gamsy has checked the Tract Participation as submitted, and only one apparent discrepancy has been discovered. This is the Water Cut percentage in respect to Continental Leaseholds 12-21. Your figure is 9.29993; Mr. Gamsy's calculation is 9.29928. A sheet showing the basis of this calculation is attached.

In order to be certain that the check is accurate, would you supply the number of calendar months which make up the cumulative production of each well to September 30, 1964.

Yours very truly,



J. V. Richards,
Director of Mines.

JSR:DB

Enc. 1.

c. c. to: Mr. J. G. Cowan, Q.C., Chairman.- with copy of sheet.

Mr. M. J. Gobert, Member.- with copy of sheet.

Mr. F. S. Gamsy, Reservoir Geologist. - with copy of sheet.

Field	MPR				Declared		
	Oil	Water	B.O.P.D. (Ave.)	Oil Decline %	Water Increase %		
Continental 12-21-10-25							
Production For							
Production For							
Production For							
Production For							
196 Production	Water	Oil	Total Fluid	Water Cut %	B.O.P.D. (Ave.)	Cumulative Oil	Producing Wells
January							
February							
March							
April	23	155					
May	13	116					
June	62	626					
July	48	655					
August	87	642					
September	51	576					
October	284	2770	3054	9.299279			
November				9.29928			
December							

Water Cut In Report Shown as 9.29993.

Well Number	Cumulative Production to 9/30/64	April to September/64 Water Cut %	April to September/64 Production	$\frac{1}{2}$ Penalized Average Monthly Participation	$\frac{1}{2}$ Current Participation	Tract Factor
<u>Calstan</u>						
9 - 24	6,254	42.75000		.10805		.10805
10 - 24	10,858	94.72081	624	.01730	.21914	.23644
11 - 24	24,265	72.61036	788	.17192	.27674	.44865
12 - 24	28,298	59.68992	364	.26868	.12783	.39651
13 - 24	40,176	27.59857	1,818	.66882	.63846	1.30728
14 - 24	43,026	29.66396	1,214	.74301	.42635	1.16935
15 - 24	52,348	52.95049	2,081	.60470	.73083	1.33552
16 - 24	80,962	49.63092	3,480	1.00978	1.22214	2.23192
1 - 25	55,635	70.35472	1,964	.40840	.68974	1.09813
2 - 25	63,918	40.29545	1,455	.91371	.51098	1.42470
3 - 25	68,896	20.26612	1,558	1.30450	.54715	1.85165
4 - 25	58,492	78.82116	1,157	.29178	.40633	.69811
5 - 25	44,989	30.47235	1,207	.79492	.42389	1.21881
6 - 25	88,218	80.08995	2,302	.42054	.80844	1.22898
7 - 25	83,812	30.45326	1,473	1.40724	.51730	1.92454
8 - 25	93,101	54.44023	6,849	1.03265	2.40530	3.43795
9 - 25	57,172	47.56184	742	.72988	.26058	.99046
10 - 25	68,371	21.54617	1,096	1.29500	.38490	1.67990
11 - 25	78,085	12.65938	959	1.66036	.33679	1.99715
12 - 25	107,262	40.20173	2,490	1.61585	.87446	2.49032
13 - 25	88,770	68.42601	1,005	.71859	.35295	1.07154
14 - 25	44,708	19.46375	811	.89926	.28482	1.18407
15 - 25	44,287	41.30879	1,435	.64362	.50396	1.14758
16 - 25	31,624	55.68247	776	.34409	.27253	.61662
1 - 26	6,936	83.43313	0	.02870		.02870
7 - 26	72,547	92.27978	936	.14359	.32871	.47231
8 - 26	78,436	96.85498	761	.06269	.26726	.32995
4 - 28	26,004	23.45374	1,547	.66284	.54329	1.20613
5 - 28	1,611	88.50656	0	.00617		.00617
1 - 29	44,927	18.67200	3,454	1.21673	1.21301	2.42974
2 - 29	35,541	45.25494	2,244	.64792	.78807	1.43599
3 - 29	93,602	30.41285	3,725	2.16900	1.30818	3.47719
4 - 29	116,981	39.80722	6,307	2.24173	2.21496	4.45669
5 - 29	70,961	66.30421	5,392	.76969	1.89362	2.66331
6 - 29	32,545	64.66513	2,142	.37018	.75225	1.12243
7 - 29	24,317	71.51842	951	.22801	.33398	.56199
8 - 29	50,035	81.35848	3,598	.31421	1.26358	1.57779
12 - 29	20,384	74.43466	1,481	.17156	.52011	.69168
Total Calstan	2,038,354		70,186	27.10567	24.64863	51.75430

<u>Well Number</u>	<u>Cumulative Production to 9/30/64</u>	<u>April to September/64 Water Cut %</u>	<u>April to September/64 Production</u>	<u>$\frac{1}{2}$ Penalized Average Monthly Participation</u>	<u>$\frac{1}{2}$ Current Participation</u>	<u>Tract Factor</u>
<u>Kranz Oil Ltd.</u>						
8 - 20	2,976	78.85802	137	.03506	.04811	.08317
9 - 20	13,458	77.11712	508	.15652	.17841	.33493
15 - 20	29,765	48.91304	2,397	.71054	.84180	1.55234
16 - 20	26,496	55.85875	1,925	.55547	.67604	1.23151
Total Kranz	72,695		4,967	1.45759	1.74436	3.20195
<u>Rundle Petroleum Ltd.</u>						
9 - 26	53,562	88.90515	1,213	.14971	.42599	.57570
10 - 26	52,338	95.13777	1,454	.06411	.51063	.57474
15 - 26	32,700	68.74754	1,587	.26435	.55734	.82169
16 - 26	41,479	94.06547	1,559	.06201	.54751	.60952
Total Rundle	180,079		5,813	.54018	2.04147	2.58165
<u>Shannon Oils Ltd.</u>						
2 - 36	17,507	84.22951		.07406		.07406
Total Shannon	17,507			.07406		.07406
<u>Sun Oil Company</u>						
11 - 20	21,893	85.75962	359	.10264	.12608	.22872
12 - 20	4,925	91.43886		.01388		.01388
13 - 20	51,620	73.09239	5,621	.43269	1.97404	2.40673
14 - 20	52,070	46.21599	1,265	.89159	.44425	1.33584
Total Sun	130,508		7,245	1.44080	2.54437	3.98517
<u>Tech Corporation Ltd.</u>						
9 - 23	25,135	87.12395	535	.07879	.18788	.26668
10 - 23	102,619	68.75523	4,109	.76769	1.44304	2.21073
15 - 23	80,368	75.99967	2,905	.46959	1.02021	1.48980
16 - 23	54,255	81.33469	2,755	.22743	.96753	1.19496
Total Tech	262,377		10,304	1.54350	3.61866	5.16217
Total All Tracts	3,513,865		142,373	50.00000	50.00000	100.00000

<u>Well Number</u>	<u>Cumulative Production to 9/30/64</u>	<u>April to September/64 Water Cut %</u>	<u>April to September/64 Production</u>	<u>$\frac{1}{2}$ Penalized Average Monthly Participation</u>	<u>$\frac{1}{2}$ Current Participation</u>	<u>Tract Factor</u>
<u>Canadian Export Gas and Oil Ltd.</u>						
1 - 30	61,034	27.90412	2,346	1.30083	.82389	2.12473
2 - 30	35,917	38.52676	1,160	.57627	.40738	.93366
3 - 30	28,680	45.09934	829	.39667	.29114	.68780
4 - 30	45,945	28.15647	1,855	.82439	.65146	1.47585
5 - 30	51,620	26.93861	1,809	.92595	.63530	1.56126
6 - 30	67,863	27.43225	3,267	1.22994	1.14734	2.37728
7 - 30	66,330	35.98171	2,240	1.06975	.78667	1.85641
8 - 30	39,173	44.43396	1,767	.60636	.62056	1.22691
9 - 30	98,071	20.05306	3,616	2.18411	1.26990	3.45401
10 - 30	99,126	17.57214	5,113	2.11353	1.79563	3.90917
11 - 30	51,259	35.37448	2,649	.84930	.93030	1.77960
12 - 30	47,232	36.09732	1,287	.74104	.45198	1.19302
15 - 30	12,697	49.90826	546	.17889	.19175	.37064
Total CEGO 704,947			28,484	12.99703	10.00330	23.00034

Continental Leaseholds Ltd.

11 - 21	18,950	9.28355	3,596	1.03758	1.26288	2.30045
12 - 21	18,351	9.29993	2,770	.87674	.97280	1.84954
13 - 21	23,788	10.41520	3,819	1.18728	1.34119	2.52848
Total Continental 61,089			10,185	3.10160	3.57688	6.67847

Frontenac Petroleum Co. Ltd.

5 - 21	2,676	89.05775	324	.03030	.11379	.14408
6 - 21	10,822	41.15556	1,324	.42905	.46498	.89403
7 - 21	12,267	35.98015	1,290	.55492	.45303	1.00796
10 - 21	13,753	18.47826	1,350	.69110	.47411	1.16520
Total Frontenac 39,518			4,288	1.70537	1.50591	3.21127

K & N Oil Development

1 - 36	6,791	85.74593	901	.03420	.31642	.35062
Total K & N 6,791			901	.03420	.31642	.35062

PROPOSED VIRDEN ROSELEA UNIT NO. 1

Tract Participation Based on Production For
Six Month Period May to October, 1964 Inclusive

<u>TRACT NUMBER</u>	<u>TRACT PARTICIPATION</u>	<u>TRACT NUMBER</u>	<u>TRACT PARTICIPATION</u>
8-20	0.09175	9-24	0.11522
9-20	0.58922	10-24	0.19965
11-20	0.75039	11-24	0.30690
12-20	0.01498	12-24	0.52868
13-20	1.49816	13-24	1.36294
14-20	2.24789	14-24	0.99563
15-20	1.38651	15-24	1.67767
16-20	1.51804	16-24	2.60292
5-21	0.21944	1-25	1.44585
6-21	0.77057	2-25	1.39400
7-21	0.81919	3-25	1.37422
10-21	1.14152	4-25	0.80467
11-21	1.35878	5-25	1.13678
12-21	1.15866	6-25	1.24561
13-21	1.50337	7-25	2.12718
4-28	1.19773	8-25	2.98871
5-28	0.00666	9-25	1.38290
1-29	1.61475	10-25	1.61248
2-29	1.31038	11-25	2.22431
3-29	4.18502	12-25	2.63448
4-29	5.22305	13-25	0.89172
5-29	2.71573	14-25	1.11182
6-29	0.59926	15-25	1.01420
7-29	0.63443	16-25	0.72496
8-29	1.81789	1-26	0.02733
12-29	0.27169	7-26	0.68069
1-30	2.16334	8-26	0.89507
2-30	0.90276	9-26	0.63509
3-30	0.62797	10-26	0.80472
4-30	1.70386	15-26	0.78976
5-30	1.66348	16-26	0.64538
6-30	1.90792	1-36	0.03047
7-30	2.05410	2-36	0.08391
8-30	1.28503		
9-30	3.68969		
10-30	3.34875		
11-30	1.82118		99.99973
12-30	1.29831		
15-30	0.37722		
9-23	0.42784		
10-23	2.65084		
15-23	1.69654		
16-23	1.23992		

PROPOSED VIRDEN ROSELEA UNIT NO. 1

Operator Participation Based on
Production for Six Month Period
May to October 1964 Inclusive

OPERATOR

TRACT PARTICIPATION %

The California Standard Co.	53.08318
Canadian Export and Gas Co.	22.84361
Canadian Superior	2.87495
Continental Et Al	4.02081
Frontenac	2.95072
K & N	0.03047
Krans	3.58552
Shannon	0.08391
Sun	4.51142
Teck	6.01514

TOTAL

99.99973

LOCATION	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY
82010251.	.	.	.	20.	22.	57.	8.
92000000.	128.	134.	133.	122.	120.	98.	51.
112000000.	64.	58.	63.	60.	62.	59.	60.
132000000.	1025.	920.	988.	958.	996.	914.	842.
142000000.	225.	201.	221.	211.	209.	208.	210.
152000000.	312.	291.	349.	344.	344.	362.	536.
162000000.	436.	382.	343.	355.	386.	299.	152.
52100000.	66.	85.	73.	72.	68.	43.	46.
62100000.	147.	146.	143.	142.	142.	128.	282.
72100000.	139.	126.	129.	127.	124.	192.	337.
102100000.	133.	132.	124.	120.	119.	210.	269.
112100000.	133.	199.	149.	207.	141.	788.	899.
122100000.	110.	148.	115.	155.	116.	626.	655.
132100000.	129.	194.	145.	202.	107.	974.	923.
428000000.	342.	321.	330.	304.	275.	287.	252.
129000000.	58.	54.	41.	42.	45.	897.	914.
229000000.	179.	167.	200.	201.	184.	521.	483.
329000000.	436.	409.	431.	437.	456.	341.	997.
429000000.	1181.	1090.	1156.	1046.	1121.	1089.	1050.
529000000.	880.	857.	881.	887.	875.	850.	804.
629000000.	.	.	.	.	.	112.	719.
729000000.	.	.	.	.	.	.	285.
829000000.	715.	623.	618.	693.	587.	647.	600.
1229000000.	.	.	.	.	.	83.	468.
130000000.	383.	394.	364.	382.	399.	386.	387.
230000000.	179.	182.	186.	176.	185.	178.	178.
330000000.	120.	121.	124.	114.	123.	75.	117.
430000000.	387.	395.	401.	345.	307.	297.	297.
530000000.	327.	333.	340.	297.	308.	297.	297.
630000000.	212.	544.	681.	592.	615.	518.	504.
730000000.	332.	304.	290.	358.	431.	416.	416.
830000000.	267.	212.	211.	257.	307.	297.	297.
930000000.	597.	607.	620.	590.	615.	595.	594.
1030000000.	626.	734.	961.	876.	862.	832.	836.
1130000000.	358.	361.	360.	381.	461.	446.	448.
1230000000.	239.	242.	248.	230.	215.	208.	207.
1530000000.	89.	92.	94.	88.	93.	90.	89.
92310261.	.	.	.	.	.	.	109.
10231090000.	818.	743.	808.	803.	742.	701.	673.
1523000000.	463.	434.	464.	448.	426.	415.	305.

162300000.	454.	409.	491.	500.	449.	440.	459.
102400000.	.	.	.	.	2.	145.	164.
112400000.	.	.	.	.	4.	181.	200.
122400000.	105.	103.	109.	99.	104.	37.	40.
132400000.	184.	181.	191.	393.	345.	262.	289.
142400000.	86.	83.	89.	242.	253.	237.	260.
152400000.	409.	402.	423.	384.	404.	386.	276.
162400000.	666.	653.	690.	626.	657.	630.	565.
125000000.	310.	304.	322.	291.	306.	293.	365.
225000000.	237.	233.	246.	217.	228.	218.	263.
325000000.	257.	252.	266.	242.	227.	218.	288.
425000000.	211.	207.	219.	198.	189.	181.	185.
525000000.	185.	181.	191.	174.	182.	200.	220.
625000000.	369.	362.	383.	347.	397.	380.	418.
725000000.	238.	233.	246.	223.	235.	224.	262.
825000000.	1007.	921.	999.	831.	978.	949.	1096.
925000000.	151.	138.	43.	.	87.	124.	195.
1025000000.	187.	168.	186.	160.	182.	149.	219.
1125000000.	230.	227.	239.	217.	220.	218.	103.
1225000000.	396.	389.	410.	373.	391.	375.	446.
1325000000.	189.	175.	182.	181.	183.	158.	175.
1425000000.	144.	133.	139.	137.	139.	117.	133.
1525000000.	235.	215.	233.	201.	229.	243.	276.
1625000000.	127.	116.	126.	109.	124.	132.	149.
726000000.	253.	233.	236.	253.	187.	130.	101.
826000000.	230.	210.	214.	230.	170.	94.	73.
926000000.	220.	173.	194.	207.	202.	190.	188.
1026000000.	313.	246.	275.	293.	287.	269.	267.
1526000000.	249.	196.	219.	234.	229.	215.	213.
1626000000.	312.	244.	273.	291.	285.	267.	265.
136000000.	.	.	.	.	.	.	184.
236000000.	.	.	.	.	.	.	.
585420512.	20189.	19622.	20618.	20295.	20463.	23198.	25933.

GENERAL COLUMNAR ARITHMETIC PROGRAM PAGE 02 SET 001
VIRDEN ROSELEA FIELD - PROPOSED UNIT AREA - 1964 OIL PRODUCTION
HIGHEST

SIX
MONTHS

LOCATION	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	PRODUCTION
82010251.	.	30.	22.	35.	.	186.
92000000.	49.	68.	55.	63.	119.	756.
112000000.	58.	60.	62.	49.	63.	374.
132000000.	991.	920.	915.	892.	904.	5878.
142000000.	217.	210.	194.	180.	188.	1294.
152000000.	445.	366.	394.	362.	365.	2468.
162000000.	161.	572.	895.	890.	901.	4076.
52100000.	55.	40.	35.	.	48.	419.
62100000.	344.	286.	333.	324.	277.	1846.
72100000.	274.	236.	287.	271.	246.	1651.
102100000.	339.	293.	263.	248.	208.	1622.
112100000.	821.	740.	782.	671.	504.	4701.
122100000.	642.	576.	617.	604.	438.	3720.
132100000.	847.	766.	802.	661.	547.	4973.
42800000.	225.	204.	230.	230.	235.	1859.
12900000.	825.	731.	753.	673.	688.	4808.
22900000.	401.	454.	468.	468.	478.	2872.
32900000.	763.	731.	752.	753.	769.	4765.
42900000.	1015.	986.	1017.	851.	855.	6683.
52900000.	1034.	942.	971.	923.	929.	5686.
62900000.	607.	704.	726.	548.	560.	3864.
72900000.	410.	256.	303.	304.	310.	1868.
82900000.	603.	468.	429.	396.	644.	3940.
122900000.	487.	443.	166.	165.	166.	1895.
13000000.	400.	392.	400.	389.	392.	2377.
23000000.	202.	241.	246.	239.	240.	1354.
33000000.	159.	241.	246.	239.	240.	1249.
43000000.	307.	302.	308.	299.	300.	2143.
53000000.	308.	302.	298.	269.	269.	1918.
63000000.	523.	515.	492.	419.	422.	3473.
73000000.	377.	242.	246.	239.	240.	2330.
83000000.	307.	302.	308.	239.	240.	1818.
93000000.	615.	607.	615.	598.	586.	3679.
103000000.	861.	846.	854.	807.	804.	5260.
113000000.	461.	452.	461.	123.	301.	2729.
123000000.	215.	212.	215.	209.	209.	1389.
153000000.	93.	93.	95.	90.	89.	560.
92310261.	202.	224.	203.	148.	154.	1040.
1023109000.	594.	596.	612.	536.	530.	4615.
1023100000.	686.	625.	615.	518.	416.	3371.

162300000.	461.	446.	460.	440.	431.	2825.	.
102400000.	172.	141.	149.	212.	219.	1061.	.
112400000.	208.	195.	207.	186.	192.	1188.	.
122400000.	43.	41.	43.	38.	41.	563.	.
132400000.	273.	256.	271.	187.	161.	1833.	.
142400000.	108.	114.	106.	533.	462.	1987.	.
152400000.	287.	344.	363.	327.	338.	2408.	.
162400000.	537.	465.	492.	444.	457.	3922.	.
125000000.	379.	330.	356.	321.	332.	2084.	.
225000000.	273.	256.	249.	224.	232.	1524.	.
325000000.	300.	283.	236.	213.	219.	1646.	.
425000000.	208.	196.	185.	166.	172.	1239.	.
525000000.	223.	208.	185.	167.	172.	1227.	.
625000000.	423.	337.	464.	417.	432.	2651.	.
725000000.	272.	257.	197.	181.	185.	1510.	.
825000000.	1538.	1457.	1389.	1316.	1314.	8110.	.
925000000.	172.	164.	156.	147.	146.	985.	.
1025000000.	197.	189.	178.	168.	169.	1160.	.
1125000000.	100.	101.	108.	838.	962.	2716.	.
1225000000.	467.	438.	464.	341.	352.	2602.	.
1325000000.	156.	152.	159.	143.	143.	1085.	.
1425000000.	140.	145.	154.	138.	139.	861.	.
1525000000.	248.	238.	224.	212.	212.	1473.	.
1625000000.	134.	128.	121.	115.	114.	796.	.
726000000.	134.	131.	140.	132.	169.	1331.	.
826000000.	98.	96.	102.	97.	123.	1177.	.
926000000.	233.	193.	243.	293.	312.	1508.	.
1026000000.	188.	150.	180.	208.	221.	1704.	.
1526000000.	273.	423.	286.	293.	313.	1837.	.
1626000000.	273.	178.	140.	163.	171.	1701.	.
136000000.	351.	366.	436.	249.	.	1586.	.
236000000.	.	.	.	.	.	.	.
585420512.	26792.	25692.	26128.	24831.	24779.	169709.	.

LOCATION	✓	TOTAL FIRST QUARTER	✓	TOTAL SECOND QUARTER	✓	TOTAL THIRD QUARTER	✓
82010251. ✓	•	•	42.	99.	8.	38.	57.
92000000. ✓	262.	395.	242.	340.	100.	168.	118.
112000000.	122.	185.	122.	181.	118.	178.	111.
132000000.	1945.	2933.	1954.	2868.	1833.	2753.	1807.
142000000.	426.	647.	420.	628.	427.	637.	374.
152000000. ✓	603.	952.	688.	1050.	981.	1347.	756.
162000000. ✓	818.	1161.	741.	1040.	313.	885.	1785.
52100000.	151.	224.	140.	183.	101.	141.	35.
62100000.	293.	436.	284.	412.	626.	912.	657.
72100000.	265.	394.	251.	443.	611.	847.	558.
102100000.	265.	389.	239.	449.	608.	901.	511.
112100000.	332.	481.	348.	1136.	1720.	2460.	1453.
122100000.	258.	373.	271.	897.	1297.	1873.	1221.
132100000.	323.	468.	309.	1283.	1770.	2536.	1463.
42800000.	663.	993.	579.	866.	477.	681.	460.
12900000.	112.	153.	87.	984.	1739.	2470.	1426.
22900000.	346.	546.	385.	906.	884.	1338.	936.
32900000.	845.	1276.	893.	1234.	1760.	2491.	1505.
42900000.	2271.	3427.	2167.	3256.	2065.	3051.	1868.
52900000.	1737.	2618.	1762.	2612.	1838.	2780.	1894.
62900000.	•	•	•	112.	1326.	2030.	1274.
72900000.	•	•	•	•	695.	951.	607.
82900000.	1338.	1956.	1280.	1927.	1203.	1671.	825.
122900000.	•	•	•	83.	955.	1398.	331.
13000000.	777.	1141.	781.	1167.	787.	1179.	789.
23000000.	361.	547.	361.	539.	380.	621.	485.
33000000.	241.	365.	237.	312.	276.	517.	485.
43000000.	782.	1183.	652.	949.	604.	906.	607.
53000000.	660.	1000.	605.	902.	605.	907.	567.
63000000.	756.	1437.	1207.	1725.	1027.	1542.	911.
73000000.	636.	926.	789.	1205.	793.	1035.	485.
83000000.	479.	690.	564.	861.	604.	906.	547.
93000000.	1204.	1824.	1205.	1800.	1209.	1816.	1213.
103000000.	1360.	2321.	1738.	2570.	1697.	2543.	1661.
113000000.	719.	1079.	842.	1288.	909.	1361.	584.
123000000.	481.	729.	445.	653.	422.	634.	424.
153000000.	181.	275.	181.	271.	182.	275.	185.
92310261.	•	•	•	•	311.	535.	351.
1023100000.	1561.	2369.	1545.	2246.	1267.	1863.	1148.
1023100000.	897.	1361.	874.	1289.	991.	1616.	1133.

162300000.	863.	1354.	949.	1389.	920.	1366.	900.
102400000.	.	.	2.	147.	336.	477.	361.
112400000.	.	.	4.	185.	408.	603.	393.
122400000.	208.	317.	203.	240.	83.	124.	81.
132400000.	365.	556.	738.	1000.	562.	818.	458.
142400000.	169.	258.	495.	732.	368.	482.	639.
152400000.	811.	1234.	788.	1174.	563.	907.	690.
162400000.	1319.	2009.	1283.	1913.	1102.	1567.	936.
125000000.	614.	936.	597.	890.	744.	1074.	677.
225000000.	470.	716.	445.	663.	536.	792.	473.
325000000.	509.	775.	469.	687.	588.	871.	449.
425000000.	418.	637.	387.	568.	393.	589.	351.
525000000.	366.	557.	356.	556.	443.	651.	352.
625000000.	731.	1114.	744.	1124.	841.	1178.	881.
725000000.	471.	717.	458.	682.	534.	791.	378.
825000000.	1928.	2927.	1809.	2758.	2634.	4091.	2705.
925000000.	289.	332.	87.	211.	367.	531.	303.
1025000000.	355.	541.	342.	491.	416.	605.	346.
1125000000.	457.	696.	437.	655.	203.	304.	946.
1225000000.	785.	1195.	764.	1139.	913.	1351.	805.
1325000000.	364.	546.	364.	522.	331.	483.	302.
1425000000.	277.	416.	276.	393.	273.	418.	292.
1525000000.	450.	683.	430.	673.	524.	762.	436.
1625000000.	243.	369.	233.	365.	283.	411.	236.
726000000.	486.	722.	440.	570.	235.	366.	272.
826000000.	440.	654.	400.	494.	171.	267.	199.
926000000.	393.	587.	409.	599.	421.	614.	536.
1026000000.	559.	834.	580.	849.	455.	605.	388.
1526000000.	445.	664.	463.	678.	486.	909.	579.
1626000000.	556.	829.	576.	843.	538.	716.	303.
136000000.	535.	901.	685.
236000000.
585420512.	39811.	60429.	40758.	63956.	52725.	78417.	50959.

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1 GENERAL COLUMNAR ARITHMETIC PROGRAM PAGE 04 SET 001
VIRDEN ROSELEA FIELD - PROPOSED UNIT AREA - 1964 OIL PRODUCTION
IND WELL AS FRAC TOT

LOCATION	TOTAL FOURTH QUARTER	FIRST HALF YEAR	MIDDLE SIX MONTHS	SECOND HALF YEAR	TOTAL 1964	HIGHEST SIX MONTHS	TOTAL FIRST QUARTER
82010251.✓	57.	99.	137.	95.	194.	.0010959	.0000000
92000000.✓	237.	735.	508.	405.	1140.	.0044546	.0065365
112000000.✓	174.	366.	359.	352.	718.	.0022037	.0030614
132000000.✓	2711.	5801.	5621.	5464.	11265.	.0346357	.0485362
142000000.✓	562.	1275.	1265.	1199.	2474.	.0076248	.0107067
152000000.✓	1121.	2002.	2397.	2468.	4470.	.0145425	.0157540
162000000.✓	2686.	2201.	1925.	3571.	5772.	.0240175	.0192126
52100000.✓	83.	407.	324.	224.	631.	.0024689	.0037068
62100000.✓	934.	848.	1324.	1846.	2694.	.0108774	.0072150
72100000.✓	804.	837.	1290.	1651.	2488.	.0097284	.0065200
102100000.✓	719.	838.	1350.	1620.	2458.	.0095575	.0064373
112100000.✓	1957.	1617.	3596.	4417.	6034.	.0277003	.0079597
122100000.✓	1659.	1270.	2770.	3532.	4802.	.0219198	.0061725
132100000.✓	2010.	1751.	3819.	4546.	6297.	.0293031	.0077446
428000000.✓	695.	1859.	1547.	1376.	3235.	.0109540	.0164325
129000000.✓	2114.	1137.	3454.	4584.	5721.	.0283308	.0025318
229000000.✓	1414.	1452.	2244.	2752.	4204.	.0169230	.0090353
329000000.✓	2274.	2510.	3725.	4765.	7275.	.0280774	.0211156
429000000.✓	2723.	6683.	6307.	5774.	12457.	.0393791	.0567111
529000000.✓	2823.	5230.	5392.	5603.	10833.	.0335044	.0433235
629000000.✓	1834.	112.	2142.	3864.	3976.	.0227683	.0000000
729000000.✓	917.	.	951.	1868.	1868.	.0110070	.0000000
829000000.✓	1469.	3883.	3598.	3140.	7023.	.0232162	.0323685
1229000000.✓	497.	83.	1481.	1895.	1978.	.0111661	.0000000
1300000000.	1181.	2308.	2346.	2360.	4668.	.0140063	.0188816
2300000000.	725.	1086.	1160.	1346.	2432.	.0079783	.0090519
3300000000.	725.	677.	829.	1242.	1919.	.0073596	.0060401
4300000000.	907.	2132.	1855.	1813.	3945.	.0126274	.0195766
5300000000.	836.	1902.	1809.	1743.	3645.	.0113016	.0165483
6300000000.	1333.	3162.	3267.	2875.	6037.	.0204644	.0237799
7300000000.	725.	2131.	2240.	1760.	3891.	.0137293	.0153237
8300000000.✓	787.	1551.	1767.	1693.	3244.	.0107124	.0114183
9300000000.✓	1799.	3624.	3616.	3615.	7239.	.0216782	.0301841
10300000000.	2465.	4891.	5113.	5008.	9899.	.0309942	.0384087
11300000000.	885.	2367.	2649.	2246.	4613.	.0160804	.0178556
12300000000.	633.	1382.	1287.	1267.	2649.	.0081845	.0120637
15300000000.	274.	546.	546.	549.	1095.	.0032997	.0045507
92310261.	505.	.	535.	1040.	1040.	.0061281	.0000000
10231000000.	1678.	4615.	4109.	3541.	8156.	.0271936	.0392030
10231000000.	1549.	2650.	2905.	3165.	5815.	.0198634	.0225222

162300000.	1331.	2743.	2755.	2697.	5440.	.0166461	.0224064
102400000.	580.	147.	624.	1057.	1204.	.0062518	.0000000
112400000.	585.	185.	788.	1188.	1373.	.0070002	.0000000
122400000.	122.	557.	364.	246.	803.	.0033174	.0052458
132400000.	619.	1556.	1818.	1437.	2993.	.0108008	.0092008
142400000.	1101.	990.	1214.	1583.	2573.	.0117082	.0042694
152400000.	1028.	2408.	2081.	1935.	4343.	.0141889	.0204206
162400000.	1393.	3922.	3480.	2960.	6882.	.0231101	.0332456
125000000.	1009.	1826.	1964.	2083.	3909.	.0122798	.0154892
225000000.	705.	1379.	1455.	1497.	2876.	.0089800	.0118486
325000000.	668.	1462.	1558.	1539.	3001.	.0096989	.0128249
425000000.	523.	1205.	1157.	1112.	2317.	.0073007	.0105412
525000000.	524.	1113.	1207.	1175.	2288.	.0072300	.0092174
625000000.	1313.	2238.	2302.	2491.	4729.	.0150316	.0184348
725000000.	563.	1399.	1473.	1354.	2753.	.0088975	.0118651
825000000.	4019.	5685.	6849.	8110.	13795.	.0477876	.0484370
925000000.	449.	543.	742.	980.	1523.	.0058040	.0054940
1025000000.	515.	1032.	1096.	1120.	2152.	.0068352	.0089526
1125000000.	1908.	1351.	959.	2212.	3563.	.0160038	.0115176
1225000000.	1157.	2334.	2490.	2508.	4842.	.0153321	.0197752
1325000000.	445.	1068.	1005.	928.	1996.	.0063932	.0090353
1425000000.	431.	809.	811.	849.	1658.	.0050733	.0068841
1525000000.	648.	1356.	1435.	1410.	2766.	.0086795	.0113025
1625000000.	350.	734.	776.	761.	1495.	.0046903	.0061063
726000000.	441.	1292.	936.	807.	2099.	.0078428	.0119479
826000000.	322.	1148.	761.	589.	1737.	.0069354	.0108226
926000000.	848.	1186.	1213.	1462.	2648.	.0088857	.0097138
1026000000.	609.	1683.	1454.	1214.	2897.	.0100407	.0138013
1526000000.	892.	1342.	1587.	1801.	3143.	.0108244	.0109881
1626000000.	474.	1672.	1559.	1190.	2862.	.0100230	.0137185
136000000.	685.	.	901.	1586.	1586.	.0093454	.0000000
236000000.0000000	.0000000
585420512.	75738.	124385.	142373.	154155.	278540.	.9999962	.9999966

3112352
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GENERAL COLUMNAR ARITHMETIC PROGRAM
VIRDEN ROSELEA FIELD - PROPOSED UNIT AREA - 1964 OIL PRODUCTION
INDIVIDUAL WELL DATA AS FRACTION OF TOTAL

1

LOCATION	TOTAL			FIRST		MIDDLE		SECOND		TOTAL
	QUARTER	THIRD	FOURTH	HALF	YEAR	SIX	MONTHS	HALF	YEAR	
82010251	.0015479	.0004845	.0007525	.0007959	.0009622	.0006162	.0006964	.0006162	.0006964	
92000000	.0053161	.0021423	.0031292	.0059090	.0035680	.0026272	.0040927	.0026272	.0040927	
112000000	.0028300	.0022699	.0022973	.0029424	.0025215	.0022834	.0025777	.0022834	.0025777	
132000000	.0448433	.0351071	.0357944	.0466374	.0394808	.0354448	.0404430	.0354448	.0404430	
142000000	.0098192	.0081232	.0074203	.0102504	.0088851	.0077778	.0088820	.0077778	.0088820	
152000000	.0164175	.0171773	.0148010	.0160951	.0168360	.0160098	.0160479	.0160098	.0160479	
162000000	.0162611	.0112858	.0354643	.0176950	.0135208	.0231649	.0207223	.0231649	.0207223	
521000000	.0028613	.0017980	.0010958	.0032720	.0022757	.0014530	.0022653	.0014530	.0022653	
621000000	.0064419	.0116301	.0123319	.0068175	.0092995	.0119749	.0096718	.0119749	.0096718	
721000000	.0069266	.0108012	.0106155	.0067291	.0090607	.0107099	.0089322	.0107099	.0089322	
102100000	.0070204	.0114898	.0094932	.0067371	.0094821	.0105089	.0088245	.0105089	.0088245	
112100000	.0177622	.0313707	.0258390	.0129999	.0252575	.0286529	.0216629	.0286529	.0216629	
122100000	.0140252	.0238851	.0219044	.0102102	.0194559	.0229120	.0172398	.0229120	.0172398	
132100000	.0200606	.0323399	.0265388	.0140772	.0268239	.0294897	.0226071	.0294897	.0226071	
428000000	.0135405	.0086843	.0091763	.0149455	.0108658	.0089260	.0116141	.0089260	.0116141	
129000000	.0153385	.0314982	.0279120	.0091409	.0242602	.0297363	.0205392	.0297363	.0205392	
229000000	.0141659	.0170626	.0186696	.0116734	.0157614	.0178521	.0150929	.0178521	.0150929	
329000000	.0192945	.0317660	.0300245	.0201792	.0261636	.0309104	.0261183	.0309104	.0261183	
429000000	.0509100	.0389073	.0359528	.0537283	.0442991	.0374558	.0447224	.0374558	.0447224	
529000000	.0408405	.0354514	.0372732	.0420468	.0378723	.0363465	.0388920	.0363465	.0388920	
629000000	.0017512	.0258872	.0242150	.0009004	.0150449	.0250656	.0142744	.0250656	.0142744	
729000000	.0000000	.0121274	.0121075	.0000000	.0066796	.0121176	.0067063	.0121176	.0067063	
829000000	.0301300	.0213091	.0193958	.0312175	.0252716	.0203691	.0252136	.0203691	.0252136	
122900000	.0012977	.0178277	.0065620	.0006672	.0104022	.0122928	.0071013	.0122928	.0071013	
130000000	.0182469	.0150350	.0155932	.0185552	.0164778	.0153092	.0167588	.0153092	.0167588	
230000000	.0084276	.0079192	.0095724	.0087309	.0081476	.0087314	.0087312	.0087314	.0087312	
330000000	.0048783	.0065929	.0095724	.0054427	.0058227	.0080568	.0068894	.0080568	.0068894	
430000000	.0148383	.0115536	.0119754	.0171403	.0130291	.0117608	.0141631	.0117608	.0141631	
530000000	.0141034	.0115663	.0110380	.0152912	.0127060	.0113068	.0130860	.0113068	.0130860	
630000000	.0269716	.0196641	.0176001	.0254210	.0229467	.0186500	.0216737	.0186500	.0216737	
730000000	.0188410	.0131986	.0095724	.0171322	.0157333	.0114170	.0139692	.0114170	.0139692	
830000000	.0134623	.0115536	.0103910	.0124693	.0124110	.0109824	.0116464	.0109824	.0116464	
930000000	.0281443	.0231582	.0237529	.0291353	.0253980	.0234504	.0259890	.0234504	.0259890	
103000000	.0401838	.0324291	.0325464	.0393214	.0359127	.0324867	.0355388	.0324867	.0355388	
113000000	.0201388	.0173559	.0116850	.0190296	.0186060	.0145697	.0165613	.0145697	.0165613	
123000000	.0102101	.0080849	.0083577	.0111106	.0090396	.0082190	.0095103	.0082190	.0095103	
153000000	.0042372	.0035068	.0036177	.0043895	.0038349	.0035613	.0039312	.0035613	.0039312	
92310261	.0000000	.0068225	.0066677	.0000000	.0037577	.0067464	.0037337	.0067464	.0037337	
1023100000	.0351178	.0237576	.0221553	.0371025	.0288608	.0229703	.0292812	.0229703	.0292812	
1023100000	.0201544	.0206077	.0204520	.0213048	.0204041	.0205312	.0208767	.0205312	.0208767	

162300000.	.0217180	.0174196	.0175737	.0220524	.0193505	.0174953	.0195304
102400000.	.0022984	.0060828	.0076579	.0011818	.0043828	.0068567	.0043225
112400000.	.0028926	.0076896	.0077239	.0014873	.0055347	.0077065	.0049292
122400000.	.0037525	.0015812	.0016108	.0044780	.0025566	.0015957	.0028828
132400000.	.0156357	.0104314	.0081729	.0125095	.0127692	.0093217	.0107453
142400000.	.0114453	.0061466	.0145369	.0079591	.0085268	.0102688	.0092374
152400000.	.0183563	.0115663	.0135731	.0193592	.0146165	.0125523	.0155920
162400000.	.0299111	.0199829	.0183923	.0315311	.0244428	.0192014	.0247074
125000000.	.0139158	.0136960	.0133222	.0146802	.0137947	.0135123	.0140338
225000000.	.0103665	.0100998	.0093084	.0110865	.0102196	.0097110	.0103252
325000000.	.0107417	.0111072	.0088198	.0117538	.0109430	.0099834	.0107740
425000000.	.0088811	.0075111	.0069053	.0096876	.0081265	.0072135	.0083183
525000000.	.0086934	.0083017	.0069185	.0089480	.0084777	.0076221	.0082142
625000000.	.0175745	.0150222	.0173360	.0179925	.0161687	.0161590	.0169778
725000000.	.0106635	.0100870	.0074335	.0112473	.0103460	.0087833	.0098836
825000000.	.0431233	.0521698	.0530645	.0457048	.0481060	.0526093	.0495261
925000000.	.0032991	.0067714	.0059283	.0043654	.0052116	.0063572	.0054677
1025000000.	.0076771	.0077151	.0067997	.0082968	.0076980	.0072654	.0077259
1125000000.	.0102414	.0038767	.0251921	.0108614	.0067358	.0143491	.0127916
1225000000.	.0178091	.0172284	.0152763	.0187643	.0174892	.0162693	.0173834
1325000000.	.0081618	.0061593	.0058755	.0085862	.0070589	.0060199	.0071659
1425000000.	.0061448	.0053304	.0056906	.0065039	.0056963	.0055074	.0059524
1525000000.	.0105228	.0097172	.0085558	.0109016	.0100791	.0091466	.0099303
1625000000.	.0057070	.0052412	.0046211	.0059010	.0054504	.0049365	.0053672
726000000.	.0089123	.0046673	.0058227	.0103871	.0065742	.0052349	.0075357
826000000.	.0077240	.0034048	.0042514	.0092294	.0053451	.0038208	.0062360
926000000.	.0093658	.0078299	.0111964	.0095349	.0085198	.0094839	.0095067
1026000000.	.0132747	.0077151	.0080408	.0135305	.0102126	.0078751	.0104006
1526000000.	.0106010	.0115918	.0117774	.0107890	.0111467	.0116830	.0112838
1626000000.	.0131809	.0091306	.0062584	.0134421	.0109501	.0077195	.0102750
136000000.	.0000000	.0114898	.0090443	.0000000	.0063284	.0102883	.0056939
236000000.	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000	.0000000
585420512.	.9999964	.9999963	.9999964	.9999966	.9999967	.9999962	.9999962

COMPARISON OF OPERATOR PARTICIPATION
PROPOSED VIRDEN-ROSELEA UNIT
MARCH, 1965

OPERATOR	TARGET FACTOR BASED ON 1964				BASED ON	
	HIGHEST SIX MONTHS	FIRST HALF	(PLAN) MIDDLE HALF	LAST HALF	MIDDLE 6 MONTHS 1963	
CANSTAN	52.23064	51.50082	52.75964 52.42041	52.25949	53.08318	
KRANZ OIL	3.66312	3.48234	3.20195 3.20225	3.57850	3.58552	
PUNDE PET.	2.52887	2.90501	2.58165 *	2.37826	2.87495 *	
SHANNON	0.07406	0.07406	.07406 *	0.07406	0.08391	
SUN OIL	3.66401	4.43231	3.98517 *	3.71610	4.51142	
TECH CORP	5.03506	5.56649	5.16217 *	4.93066	6.01514	
CEGO	21.91785	24.15549	23.00034 *	21.92211	22.84361	
CONTINENTAL	7.04776	4.96597	6.67847 *	7.15433	4.02081	
FRENTENAC	3.33698	2.88316	3.21127 *	3.43771	2.95072	
KEN OIL	.50147	0.03420	.35062 *	0.54862	0.03047	
TOTAL UNIT	99.99982	99.99985	100.66641	99.99984	99.99973	

* Named Canadian Superior?

Comparison of Operator Participation
Proposed Virgin Roselen Unit
March, 1965

Operator	Proposed			On Basis of 1964 Oil Production			
	Penalized Average Monthly Part.	Current Part.	Tract Factor	Highest Six Months	First Half	Middle Half	Last Half
Calstan	54.21134	49.29726	52.42041	.5034994	.4879030	.4929709	.5030763
Kranz Oil	2.91518	3.48872	3.20225	.0441105	.0404950	.0348870	.0424181
Rundle Pet	1.08036	4.08294	2.58165	.0397738	.0472965	.0408292	.0367615
Shannon	.14812	—	.07406	.0000000	.0000000	.0000000	.0000000
Sun Oil	2.88160	5.08874	3.98517	.0444642	.0598302	.0508874	.0455060
Tech Corp	3.08700	7.23732	5.16217	.0698312	.0804597	.0723731	.0677432
CEGO	25.99406	20.00660	23.00034	.1784163	.2231692	.2000654	.1785015
Continental	6.20320	7.15376	6.67847	.0789232	.0372873	.0715373	.0810546
Frontenac	3.41074	3.01182	3.21127	.0326322	.0235557	.0301180	.0346467
KNO Oil	.06840	.63284	.35062	.0093454	.0000000	.0063284	.0102883
	(1)	(2)	(1)	(1)	(1)	(1)	(1)
TOTAL UNIT	100.00000	100.00000	100.66641	.9999962	.9999966	.9999965	.9999962

Comparison of Operator Participation
Proposed Virgin Roselen Unit
March, 1965

Operator	Proposed			On Basis of 1964 Oil Production			
	Penalized Average Monthly Part.	Current Part.	Tract Factor	Highest Six Months	First Half	Middle Half	Last Half
Calstar	54.21134	49.29726	51.75430 52.42241	.5024994	.4879030	.4929709	.5030763
Kranz Oil	3.91518	3.48872	3.20195 3.20225	.0441105	.0404950	.0348870	.0424181
Rundle Pet	1.08036	4.08294	2.58165	.0397738	.0472965	.0408292	.0367615
Shannon	.14312	—	.07406	.0000000	.0000000	.0000000	.0000000
Sun Oil	2.88160	5.08874	3.98517	.0444642	.0598302	.0508874	.0455060
Tech Corp	3.08700	7.23732	5.16217	.0698312	.0804597	.0723731	.0677432
CEGO	25.99406	20.00660	23.00034	.1784163	.2231692	.2000654	.1785015
Continental	6.20320	7.15376	6.67847	.0789232	.0372873	.0715373	.0810546
Frontenac	3.41074	3.01182	3.21127	.0326322	.0235557	.0301180	.0346467
Oil Co.	.06840	.63284	.35062	.0093454	.0000000	.0063284	.0102883
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
TOTAL UNIT	100.00000	100.00000	100.66641	.9999962	.9999966	.9999965	.9999962

COMMISSION OF OPERATOR PARTICIPATION
PROPOSED VIRDEN-ROSELEA UNIT
MARCH, 1965

OPERATOR	TARGET FACTOR BASED ON 1964				BASED ON MIDDLE 6 MONTHS 1963
	HIGHEST SIX MONTHS	FIRST HALF	(PLAN) MIDDLE HALF	LAST HALF	
CANSTAN	52.23064	51.50082	51.75430 52.42041	52.25949	53.08318
KRANZ OIL	3.66312	3.48234	3.20195 3.20225	3.57850	3.58552
MUNRO PET.	2.52887	2.90501	2.58165 ✓	2.37826	2.87495 *
SHANNON	0.07406	0.07406	.07406 ✓	0.07406	0.08391
SUN OIL	3.66401	4.43231	3.98517 ✓	3.71610	4.51142
TECH CORP	5.08506	5.56649	5.16217 ✓	4.93066	6.01514
CEGO	21.91785	24.15549	23.00034 ✓	21.92211	22.84361
CONTINENTAL	7.04776	4.96597	6.67847 ✓	7.15433	4.02081
FRIENTENAC	3.33698	2.88316	3.21127 ✓	3.43771	2.95072
K. N. OIL	.50147	0.03420	.35062 ✓	0.54862	0.03047
TOTAL UNIT	99.99982	99.99985	100.00000 99.66641	99.99984	99.99973

* Named Canadian Superior?

COMPARISON OF OPERATOR PARTICIPATION
PROPOSED VIRDEN-ROSELEA UNIT
MARCH, 1965

OPERATOR	TRACT FACTOR BASED ON 1964				BASED ON
	HIGHEST SIX MONTHS	FIRST Half	(PLAN) MIDDLE HALF	LAST HALF	MIDDLE 6 MONTHS 1963
CANSTAN	52.23064	51.50082	51.75430 52.42041	52.25949	53.08318
KRANZ OIL	3.66312	3.48234	3.20195 3.20225	3.57850	3.58552
MUNDRE PET.	2.52887	2.90501	2.58165 ✓	2.37826	2.87495*
SHANNON	0.07406	0.07406	.07406 ✓	0.07406	0.08391
SUN OIL	3.66401	4.43231	3.98517 ✓	3.71610	4.51142
TECH CORP	5.03506	5.56649	5.16217 ✓	4.93066	6.01514
CEGO	21.91785	24.15549	23.00034 ✓	21.92211	22.34361
CONTINENTAL	7.04776	4.96597	6.67847 ✓	7.15433	4.02081
FRENTENAC	3.33698	2.88316	3.21127 ✓	3.43771	2.95072
K. N OIL	.50147	0.03480	.35062 ✓	0.54862	0.03047
TOTAL UNIT	99.99982	99.99985	100.66641	99.99984	99.99973

* Named Canadian Superior?

COMMISSION OF OPERATOR PARTICIPATION
PROPOSED VIRDEN-ROSELEA UNIT
MARCH, 1965

OPERATOR	TRUST FACTOR BASED ON 1964				BASED ON	
	HIGHEST SIX MONTHS	FIRST HALF	(PLAN) MIDDLE HALF	LAST HALF	MIDDLE 6 MONTHS	1965
CAUSTAN	52.23064	51.50082	51.75430 52.42041	52.25949		53.08318
KRONEZ OIL	3.66312	3.48234	3.20195 3.20225	3.57850		3.58552
MUNDRE PET.	2.52887	2.90501	2.58165	2.37826		2.87495*
SHANNON	0.07406	0.07406	.07406	0.07406		0.08391
SUN OIL	3.66401	4.43231	3.98517	3.71610		4.51142
TECH CORP	5.08506	5.56649	5.16217	4.93066		6.01514
CEGO	21.91785	24.15549	23.00034	21.92211		22.84361
CONTINENTAL	7.04776	4.96597	6.67847	7.15433		4.02081
FRONTENAC	3.33698	2.88316	3.21127	3.43771		2.95072
K. N OIL	.50147	0.03420	.35062	0.54862		0.03047
TOTAL UNIT	99.99982	99.99985	100.66641	99.99984		99.99973

* Named Canadian Superior?

COMPARISON OF OPERATOR PARTICIPATION
PROPOSED VIRDEN-ROSELEA UNIT
MARCH, 1965

OPERATOR	TARGET FACTOR BASED ON 1964				BASED ON MIDDLE 6 MONTHS 1963
	HIGHEST SIX MONTHS	FIRST HALF	(PLAN) MIDDLE HALF	LAST HALF	
CAUSTAN	52.23064	51.50082	51.75430 52.42041	52.25949	53.08318
KRAZ OIL	3.66312	3.48234	3.20195 3.20225	3.57850	3.58552
PLUMMER PET.	2.52887	2.90501	2.58165 ✓	2.37826	2.87495*
SHANNON	0.07406	0.07406	.07406 ✓	0.07406	0.08391
SUN OIL	3.66401	4.43231	3.98517 ✓	3.71610	4.51142
TECH CORP	5.03506	5.56649	5.16217 ✓	4.93066	6.01514
CEGO	21.91785	24.15549	23.00034 ✓	21.92211	22.84361
CONTINENTAL	7.04776	4.96597	6.67847 ✓	7.15433	4.02081
FRONTENAC	3.33698	2.88316	3.21127 ✓	3.43771	2.95072
K. N OIL	.50147	0.03420	.35062 ✓	0.54862	0.03047
TOTAL UNIT	99.99982	99.99985	100.66641	99.99984	99.99973

* Named Canadian Superior?

Comparison of Operator Participation
Proposed Virden Roselen Unit
March, 1965

Operator	<u>Proposed</u>			<u>On Basis of 1964 Oil Production</u>			
	Penalized Average Monthly Part.	Current Part.	Tract Factor	Highest Six Months	First Half	Middle Half	Last Half
Calstan	54.21134	49.29726	52.42041	.5024994	.4879030	.4929709	.5030763
Kranz Oil	2.91518	3.48872	3.20225	.0441105	.0404950	.0348870	.0424181
Rundle Pet	1.08036	4.08294	2.58165	.0397738	.0472965	.0408292	.0367615
Shannon	.14812	—	.07406	.0000000	.0000000	.0000000	.0000000
Sun Oil	2.88160	5.08874	3.98517	.0444642	.0598302	.0508874	.0455060
Tech Corp	3.08700	7.23732	5.16217	.0698312	.0804597	.0723731	.0677432
CEGO	25.99406	20.00660	23.00034	.1784163	.2231692	.2000654	.1785015
Continental	6.20320	7.15376	6.67847	.0789232	.0372873	.0715373	.0810546
Frontenac	3.41074	3.01182	3.21127	.0326322	.0235557	.0301180	.0346467
Net Oil	.06840	.63284	.35062	.0093454	.0000000	.0063284	.0102883
		(2)	(2)	(2)	(2)	(2)	
TOTAL UNIT	100.00000	100.00000	100.66641	.9999962	.9999966	.9999965	.9999962

Comparison of Operator Participation
Proposed Virgin Roselen Unit
March, 1965

Operator	Proposed			On Basis of 1964 Oil Production			
	Penalized Average Monthly Part.	Current Part.	Tract Factor	Highest Six Months	First Half	Middle Half	Last Half
Cajetan	54.21134	49.29726	51.75430 52.42947	.5024994	.4879030	.4929709	.5030763
Kranz Oil	3.91518	3.48872	3.20195 3.20225	.0441105	.0404950	.0348870	.0424181
Rundle Pet	1.08036	4.08294	3.58165	.0397738	.0472965	.0408292	.0367615
Shannon	.14912	—	.07406	.0000000	.0000000	.0000000	.0000000
Sun Oil	2.88160	5.08874	3.98517	.0444642	.0598302	.0508874	.0455060
Tech Corp	3.08700	7.23732	5.16217	.0698312	.0804597	.0723731	.0677432
CEGO	25.99406	20.00660	23.00034	.1784163	.2231692	.2000654	.1785015
Continental	6.20320	7.15376	6.67847	.0789232	.0372873	.0715373	.0810546
Frontenac	3.41074	3.01182	3.21127	.0326322	.0235557	.0301180	.0346467
Ren Oil	.06840	.63284	.35062	.0093454	.0000000	.0063284	.0102883
	(1)	(2)	(3)	(4)	(5)	(6)	
TOTAL UNIT	100.00000	100.00000	100.66641	.9999462	.9999966	.9999965	.9999962