

MAR-17-1999 09:25

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P.04

SUNCOR INC. RESOURCES GROUP

Well Test Report

Page 003

Legal Well Name: Suncor Netla K-77-60-50-122-30
 Common Well Name: Suncor Netla K-77-60-50-122-30
 Event Name: ORIG COMPLETION

Report #: 2
 Start: 1999-03-13

Spud Date: 1999-02-07
 Report Date: 1999-03-16
 End:

Well Test Summary

Contractor:	EN-TEST Corp.	Interval Top/Base:	1,988.00 (m) / 2,118.00 (m)	Total Hrs.:	30
Supervisor:	R.Branson/	KH:		Total Swabs:	
Start/End Date:	1999-03-15 / 1999-03-16	Skin Factor:		Initial Fluid Level:	(m)
Test Reason:	Deliverability	Well Flow Effic.:		Final Fluid Level:	(m)
Pressure Records Run:	N	Pump TMD:	(m)	Min. Fluid Level:	(m)
Previous Stimulation:	Acid Treatment	Initial Csg. Pressure:	(kPa)	Max. Fluid Level:	(m)
Analysis By:		Final Csg. Pressure:	(kPa)	Initial Tbg. Pressure:	2,400.00 (kPa)
				Final Tbg. Pressure:	160.00 (kPa)

Volumetrics

Initial Fluid Remaining to Recover		Produced Formation Fluids		Cumulative Produced Volumes	
Initial Oil: (m³)	Current Oil: (m³)	Oil: (m³)	Oil: (m³)	Water: 48.74 (m³)	
Initial Water: 72.86 (m³)	Current Water: 24.12 (m³)	Water: (m³)	Water: (m³)	Other: 35.00 (m³)	
Initial Other: 55.00 (m³)	Current Other: 20.00 (m³)	Other: (m³)	Other: (m³)	Total Fluid: 83.74 (m³)	
Initial Total: 127.86 (m³)	Current Total: 44.12 (m³)	Total: (m³)	Total: (m³)	Total Gas: 83.6 (Kcm³)	

Pressure (Section)

SL	Date	Time	Surface Pressure (kPa)	Bottom Hole Pressure (kPa)	Flow Rate (m³/d)	Wellbore Pressure (kPa)	Choke (mm)	Well (m)	Flow Rate (m³/d)	Bottom Hole Pressure (kPa)	Flow Rate (m³/d)	Well (m)
1	1999-03-16	01:00	140		51	102.3	44	14	140		140	7
2	1999-03-16	01:30	1,080									
3	1999-03-16	02:00	1,500									
4	1999-03-16	02:30	1,800									
5	1999-03-16	03:00	2,000									
6	1999-03-16	03:30	2,200									
7	1999-03-16	04:00	2,300									
8	1999-03-16	05:00	210		51	102.3	44	11	210		210	7
9	1999-03-16	06:00	200		51	102.3	44	9	200		200	7
10	1999-03-16	07:00	185		51	102.3	44	8	185		185	7
11	1999-03-16	08:00	170		51	102.3	44	8	170		170	7

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Suncor D&C

004/007

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SUNCOR INC. RESOURCES GROUP

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Well Test Report

Legal Well Name: Suncor Netla K-77-60-50-122-30
 Common Well Name: Suncor Netla K-77-60-50-122-30
 Event Name: ORIG COMPLETION

Report #: 2
 Start: 1999-03-13

Spud Date: 1999-02-07
 Report Date: 1999-03-16
 End:

Test Flow (Section 1)

	Date	Time	Surf Press (PSI)	Bottom Hole Press (PSI)	Flow Rate (GPM)	Motor Run (min)	Flow Rate (GPM)	Water (G)	Flow Rate (GPM)	Gravel Press (PSI)	Bottom Hole Press (PSI)	Surf Press (PSI)
12	1999-03-16	09:00	155		51	102.3	44	8	155		155	7
13	1999-03-16	10:00	160		51	102.3	44	10	160		160	7
14	1999-03-16	10:30	160		51	102.3	44	10	160		160	7

Test Flow (Section 2)

	Pressure (PSI)	Surf Press (PSI)	Bottom Hole Press (PSI)	Flow Rate (GPM)	Motor Run (min)	Flow Rate (GPM)	Water (G)	Flow Rate (GPM)	Gravel Press (PSI)	Bottom Hole Press (PSI)	Surf Press (PSI)
1	7	17			100.00						
2											
3											
4											
5											
6											
7											
8	7	7			100.00					8.2	0.692
9	7	7			100.00					7.2	0.692
10	7	4			100.00					6.6	0.692
11	7	3			100.00					5.9	0.692
12	7	6			100.00					5.9	0.692
13	7	6			100.00					5.9	0.692
14	7	6			100.00					5.9	0.692

Test Flow (Section 3)

	Water (GPM)	Water (GPM)	Surf Press (PSI)	Bottom Hole Press (PSI)	Flow Rate (GPM)	Motor Run (min)	Flow Rate (GPM)	Water (G)	Flow Rate (GPM)	Gravel Press (PSI)	Bottom Hole Press (PSI)	Surf Press (PSI)
1	5.760	80.52	200,000.0	5.8	5.8			1.84		0.00		
2												
3												
4												
5												

pH = 6, Flowed 1 hr, Stop-Cock

N

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Suncor DAC

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Well Test Report

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Spud Date: 1999-02-07
Report Date: 1999-03-16
End:

Test Flow (Section 3)

	Inlet Rate (m ³ /day)	Water Volume	Bility (G/GH)	Turbidity Rate (m ³ /day)	Total Solids (mg/day)	Wetted Oil	Percent Solids	Grain Size Distribution	Moisture (%)	Losses (%)	Tool Type	pH	Comments	Test ID
6														
7														
8	17.280	81.24	238,000.0	17.3	17.3			0.47		0.00			pH = 6, Opened well @ 04:00 hrs.	N
9	11.280	81.72	236,000.0	11.3	11.3			0.63		0.00			pH = 6	N
10	17.040	82.43	232,000.0	17.0	17.0			0.39		0.00			pH = 6	N
11	8.640	82.79	230,000.0	8.6	8.6			0.68		0.00			pH = 6	N
12	8.640	83.15	226,000.0	8.6	8.6			0.68		0.00			pH = 6	N
13	8.640	83.51	220,000.0	8.6	8.6			0.68		0.00			pH = 6	N
14	5.760	83.74	220,000.0	5.8	5.8			1.02		0.00			pH = 6, Shut in well @ 10:30 hrs. Samples taken.	N

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SUBJECT: SUNCOR OIL FIELD

Well Test Report

Legal Well Name: Suncor Netla K-77-60-50-122-30
 Common Well Name: Suncor Netla K-77-60-50-122-30
 Event Name: ORIG COMPLETION

Report #: 1
 Start: 1999-03-13

Spud Date: 1999-02-07
 Report Date: 1999-03-15
 End:

WELL LOG SUMMARY

Contractor:	EN-TEST Corp.	Interval Top/Base:	(m) / (m)	Total Hrs.:
Supervisor:	R.Branson/	KH:		Total Swabs:
Start/End Date:	1999-03-15 /	Skin Factor:		Initial Fluid Level:
Test Reason:	Deliverability	Well Flow Effic.:		Final Fluid Level:
Pressure Records Run:	N	Pump TMD:	(m)	Min. Fluid Level:
Previous Stimulation:	Acid Treatment	Initial Csg. Pressure:	(kPa)	Max. Fluid Level:
Analysis By:		Final Csg. Pressure:	(kPa)	Initial Tbg. Pressure:
				Final Tbg. Pressure:

VOLUME

Initial Production (m³)		Current Production (m³)		Cumulative Production (m³)	
Initial Oil:	(m³)	Current Oil:	(m³)	Oil:	(m³)
Initial Water:	72.86 (m³)	Current Water:	29.08 (m³)	Water:	43.78 (m³)
Initial Other:	55.00 (m³)	Current Other:	18.50 (m³)	Other:	38.50 (m³)
Initial Total:	127.86 (m³)	Current Total:	47.58 (m³)	Total Fluid:	80.28 (m³)
				Total Gas:	(Km³)

Well Flow Summary

Time	Date	Time	Pressure (kPa)	Flow Rate (m³/hr)	Pressure (kPa)	Flow Rate (m³/hr)	Pressure (kPa)	Flow Rate (m³/hr)	Pressure (kPa)	Flow Rate (m³/hr)	Pressure (kPa)	Flow Rate (m³/hr)
1	1999-03-15	00:00	14,000		13			14,000		4,700		
2	1999-03-15	00:30	15,600		7			15,600		7,800		
3	1999-03-15	01:00	18,700		5			18,700		7,300		
4	1999-03-15	02:00	19,100		5			19,100		7,400		
5	1999-03-15	03:00	19,600		5			19,600		7,100		
6	1999-03-15	04:00	17,400		7			17,400		500		
7	1999-03-15	04:35	9,000		13			9,000		10,000		
8	1999-03-15	05:00	9,600		13			9,600		200		
9	1999-03-15	05:30	10,300		5			10,300		350		
10	1999-03-15	06:00	9,700		7			9,700		1,600		
11	1999-03-15	07:00	8,900		7			8,900		5,000		

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Suncor D&C

004/008

Well Test Report

Legal Well Name: Suncor Netla K-77-60-50-122-30
Common Well Name: Suncor Netla K-77-60-50-122-30
Event Name: ORIG COMPLETION

Report #: 1
Start: 1999-03-13

Spud Date: 1999-02-07
Report Date: 1999-03-15
End:

Interval Data (Section 1)

Well	Date	Time	Surf. Press. (kPa)	Wellhead Press. (kPa)	Choke Pressure (kPa)	Well Temp (°C)	Well Depth (m)	Well ID	Well ID	Well ID	Well ID	Well ID
12	1999-03-15	08:00	7,500		7				7,500	1,200		
13	1999-03-15	08:30	7,500		32	102.3	32	22	7,500	1,700	7,500	1,241
14	1999-03-15	09:00	7,400		32	102.3	32	24	7,400	5,000	7,400	827
15	1999-03-15	10:00	6,500		10	102.3	32	25	6,500	1,700	6,500	1,282
16	1999-03-15	11:00	6,340		10	102.3	32	28	6,340	2,450	6,340	1,310
17	1999-03-15	12:00	6,150		10	102.3	32	28	6,150	2,700	6,150	1,310
18	1999-03-15	13:00	5,560		10	102.3	32	28	5,560	2,200	5,560	1,324
19	1999-03-15	14:00	4,190		13	102.3	32	28	4,190	1,800	4,190	1,041
20	1999-03-15	14:25			16	102.3						
21	1999-03-15	15:00	3,430		16	102.3	32	28	3,430	1,900	3,430	1,269
22	1999-03-15	16:00	1,930		16	102.3	32	26	1,930	1,400	1,930	1,048
23	1999-03-15	17:00	1,260		51	102.3	44	32	1,260	1,200	1,260	248
24	1999-03-15	18:00	740		51	102.3	44	31	740	1,300	740	166
25	1999-03-15	19:00	500		51	102.3	44	25	500	700	500	97
26	1999-03-15	20:00	275		51	102.3	44	21	275	300	275	63
27	1999-03-15	21:00	320		51	102.3	44	18	320		320	35
28	1999-03-15	22:00	320		51	102.3	44	16	320		320	28
29	1999-03-15	22:05	800									
30	1999-03-15	22:10	1,200									
31	1999-03-15	22:15	1,250									
32	1999-03-15	22:30	1,400									
33	1999-03-15	23:00	1,850									
34	1999-03-15	23:30	2,200									
35	1999-03-15	00:00	2,400									

Well Flow (Section 2)

Well	Date	Time	Surf. Press. (kPa)	Wellhead Press. (kPa)	Choke Pressure (kPa)	Well Temp (°C)	Well Depth (m)	Well ID	Well ID	Well ID	Well ID	Well ID
1												
2												

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SUNCOR INC. RESOURCES GROUP

Well Test Report

Legal Well Name: Suncor Netla K-77-60-50-122-30
Common Well Name: Suncor Netla K-77-60-50-122-30
Event Name: ORIG COMPLETION

Report #: 1
Start: 1999-03-13

Spud Date: 1999-02-07
Report Date: 1999-03-15
End:

Well Flow Station 30

Time (hr)	Pressure (psi)	Flow Rate (bbl/hr)	Pressure (psi)	Flow Rate (bbl/hr)	Pressure (psi)	Flow Rate (bbl/hr)	Pressure (psi)	Flow Rate (bbl/hr)	Pressure (psi)	Flow Rate (bbl/hr)	Pressure (psi)	Flow Rate (bbl/hr)
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13	4	14								15.6	0.692	
14	2	14								8.6	0.692	
15	13	20								26.6	0.692	
16	18	24								30.1	0.892	
17	21	26								33.6	0.892	
18	20	24								33.7	0.892	
19	39	24								41.4	0.692	
20												
21	25	26								36.2	0.692	
22	30	24								36.6	0.692	
23	34	26								40.9	0.692	
24	28	25								32.4	0.692	
25	20	25								23.6	0.692	
26	13	26								17.4	0.692	
27	7	26								12.2	0.692	
28	8	27								12.4	0.692	
29												
30												
31												
32												
33												

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Suncor D&C

006/008

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SUNCOR INC. RESOURCES GROUP

Well Test Report

Legal Well Name: Suncor Netla K-77-60-50-122-30
 Common Well Name: Suncor Netla K-77-60-50-122-30
 Event Name: ORIG COMPLETION

Report #: 1
 Start: 1999-03-13

Spud Date: 1999-02-07
 Report Date: 1999-03-15
 End:

Production (Standard)

Time (hr)	Pressure (psi)	Flow Rate (bbl/d)	Temperature (°F)	Viscosity (cP)	Gas Solubility (vol %)	Formation Volume Factor (bbl/bbl)	Water Cut (%)	Choke Size (in)	Wellhead Pressure (psi)	Separator Pressure (psi)	Separator Temperature (°F)	Separator Gas Solubility (vol %)	Separator Water Cut (%)	Separator Flow Rate (bbl/d)
34														
35														

Injection (Standard)

Time (hr)	Pressure (psi)	Flow Rate (bbl/d)	Temperature (°F)	Viscosity (cP)	Gas Solubility (vol %)	Formation Volume Factor (bbl/bbl)	Water Cut (%)	Choke Size (in)	Wellhead Pressure (psi)	Separator Pressure (psi)	Separator Temperature (°F)	Separator Gas Solubility (vol %)	Separator Water Cut (%)	Separator Flow Rate (bbl/d)
1														
2														
3		4.35												
4		7.98												
5		11.24	278,000.0											
6		15.52	276,000.0											
7														
8		21.00	276,000.0							0.00				
9														
10		25.97	276,000.0							0.00				
11		30.25	240,000.0											
12	102.720	34.53				102.7	102.7							
13														
14	132.960	40.07				133.0	133.0		0.06					
15	138.080	45.74				136.1	136.1		0.20					
16	112.320	50.42				112.3	112.3		0.27					
17	131.280	55.89	250,000.0			131.3	131.3		0.28					
18	95.040	59.85				95.0	95.0		0.35					
19	87.360	63.49				87.4	87.4		0.47					
20														
21	87.360	67.13	250,000.0			87.4	87.4		0.41					
22	77.040	70.35				77.0	77.0		0.47					
23	65.760	73.09	250,000.0			64.8	64.8		0.63					
24	78.240	76.35	236,000.0			78.2	78.2		0.41					

Decrease choke to control foam.
 Decrease choke to control foam.

pH = 3
 pH = 3

pH = 3

pH = 4
 pH = 4

pH = 5
 Meter in service 1.25" plate
 pH = 5
 pH = 5

pH = 5
 pH = 5
 pH = 5

Increase choke to avoid loading
 pH = 6

pH = 6

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SUNCOR RE-RESOURCES GROUP

Well Test Report

Legal Well Name: Suncor Netla K-77-60-50-122-30
 Common Well Name: Suncor Netla K-77-60-50-122-30
 Event Name: ORIG COMPLETION

Report #: 1
 Start: 1999-03-13

Spud Date: 1999-02-07
 Report Date: 1999-03-15
 End:

Wellbore (Station 9)

Time (HH:MM:SS)	Pressure (kPa)	Flow (m³/d)	Temperature (°C)	Viscosity (cP)	Gas (%)	Water (%)	Oil (%)	Surfactant (%)	Other (%)	Comments	Notes
25	45.720	78.13	246,000.0	45.7	45.7			0.52			
26	14.160	78.72	224,000.0	14.2	14.2			1.23			
27	17.520	79.45	220,000.0	17.5	17.5			0.89			
28	19.920	80.28	200,000.0	19.9	19.9			0.62			
29											
30											
31											
32											
33											
34											
35											

pH = 6
 pH = 6
 pH = 6
 pH = 6, shut in the well @ 22:00 hrs.
 Began to stop-cock the well.

N