

Virden Roselea Unit #3
2014 Annual EOR Report

Executive Summary

In 2014 oil production in the Virden Roselea Unit #3 (VRU #3) was 30 m³/d (190 bbl/d) totaling 11 e³m³ (69.4 mmbbl). Annual production was up 28.1% from 2013 to 2014. The oil rate for the unit has increased to 68 m³/d (430 bbl/d) in December and had a peak of 80 m³/d (500 bbl/d). By the end of 2014 cumulative oil production from the VRU #3 was 2 609 e³m³ (16.4 mmbbl). The original forecasted recovery was 1 290 e³m³ (8.1 mmbbl) on primary recovery and 2 837 e³m³ (17.9 mmbbl) total primary plus secondary recovery.

In December 2014 there were 58 producing oil wells and 23 water injectors active in the unit. In 2014, three Virden horizontal wells and two horizontal Scallion wells were drilled in the unit. There was an extensive battery upgrade done on this unit and is on schedule to be fully commissioned by the end of January 2015.

Corex Resources has operated VRU #3 since December 19, 2012.

Discussion

The VRU #3 has been under waterflood since 1967, 12 years after first production from the pool in 1954. Water injection increased the oil production rate from $\sim 100 \text{ m}^3/\text{d}$ ($\sim 629 \text{ bbl/d}$) to $\sim 225 \text{ m}^3/\text{d}$ ($1,415 \text{ bbl/d}$); however lower than peak production from the field of $450 \text{ m}^3/\text{d}$ ($2,830 \text{ bbl/d}$). Expected ultimate oil recovery was doubled by the waterflood.

Prior to 2013, there had been only one development well drilled in VRU #3 in the last nine years, a horizontal well drilled in 2008. In 2002 and 2003, nine horizontal wells were drilled in the unit with mixed results. In 2014, two Scallion and three Virden horizontal wells were drilled in the unit, with general success.

There have been no new wells converted to injection since 1974. In the Northeast segment of the unit different tracers were placed into the injectors and the produced water was monitored from the producing wells. The results showed that the reservoir is very complex with notable fracturing. A clear fracture trend can be seen in the NW-SE orientation, with water from distant injectors traveling to some wells and completely bypassing others. Therefore, there is an undisputable high permeability channel that is preferential to flow in some areas of the unit. This gives us the understanding that the waterflood is more complex than envisioned and the patterns that have been drawn in all of the units will rarely be correct. The intricacy of the reservoir and ultimately the waterflood behavior cannot be fully understood. With natural fractures the low recovery of the unit and poor sweep efficiency is understandable. An increase in the injector to producer ratio will likely be effective and change the well-established streamlines. This unit also has the lowest cum VRR of any of the units at 0.80, and increasing the amount of injection as well as balancing the flood would be beneficial. The water injection rate was $720 \text{ m}^3/\text{d}$ ($4,530 \text{ bbl/d}$) in 2014, down significantly from last year and the producing WOR was $27 \text{ m}^3/\text{m}^3$. The injected water at VRU #3 is not filtered or treated in any way.

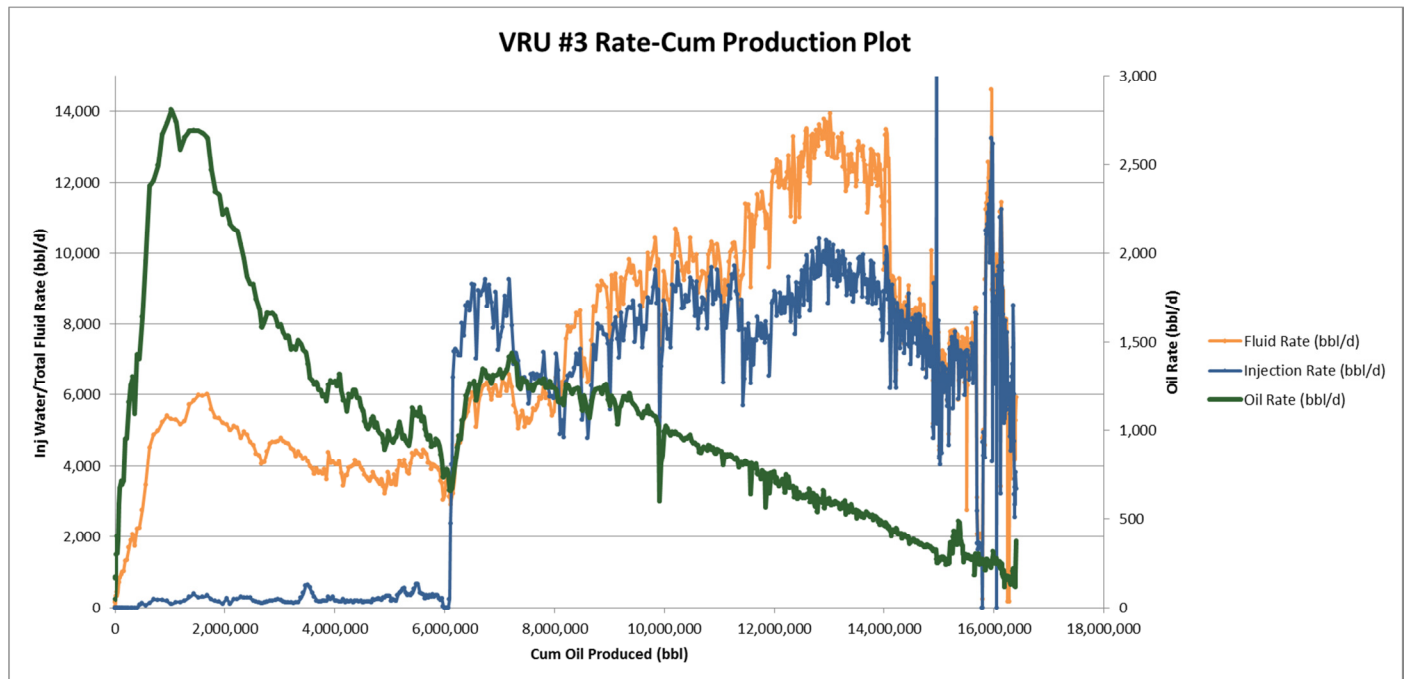
Significant events in 2014 are as follows:

- September 2014, VRU #3 battery upgrade began.
- October 2014, drill 102/14-12-010-26W1/00, horizontal well in the Virden formation.
- November 2014, drilled 103/05-18-010-25W1/00 and 102/04-12-010-26W1/00 Scallion horizontal wells.
- November to December 2014, drill 102/11-02-010-26W1/00, and 102/07-11-010-26W1/00 horizontal wells in the Virden formation.

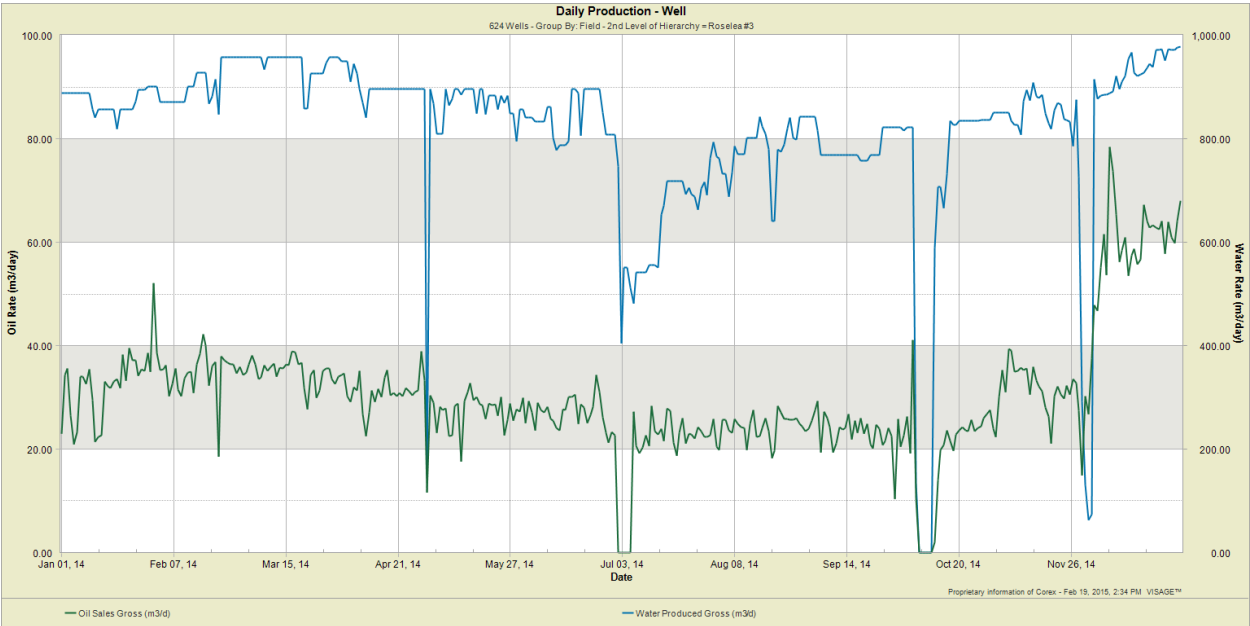
In the composite rate – cumulative oil plot below, waterflood response is clearly demonstrated at a cumulative oil production of 1000 e³m³ (6.3 MMbbl) after a pattern waterflood was initiated.

Detailed production, injection, voidage tables and plots for the total unit and each injection pattern are at the end of this report.

VRU #3 – Rate vs Cum Oil Production



VRU #3 – Rate vs Time



2014 Reservoir Pressure Surveys

Unit	UWI	License	Test Type	Date of Pressure	Duration of SI (days)	Datum BHP (kPaa)
VRU #3	103/05-18-010-25W1/00	10124	Static Gradient	11/16/2014	0	6,336
VRU #3	100/14-11-010-26W1/00	1202	Static Gradient	1/7/2014	1	6,765
VRU #3	102/04-12-010-26W1/00	10204	BH BU	11/28/2014	3	7,234
VRU #3	100/06-12-010-26W1/00	1292	Surface Recorder	10/16/2014	1	8,216
VRU #3	100/14-12-010-26W1/00	1192	Surface Recorder	10/16/2014	1	7,920
VRU #3	100/14-12-010-26W1/00	1192	Surface Recorder	11/24/2014	1	6,750

With the six pressure surveys conducted in 2014 the average pool pressure was found to be 7 200 kPaa. Prior pressure surveys have shown that wide variations in pressure exist across the pool. Average pressure is estimated to be between 6 500 – 8 500 kPaa based on pressures taken in 2011 and 2012, indicating that the reservoir is over pressured. The pressures recorded in 2014 are within the range of historical pressures.

It is important to note that the pressures reported for 103/05-18-010-25W1/00 and 102/04-12-010-26W1/00 are from newly drilled Scallion horizontals prior to production.

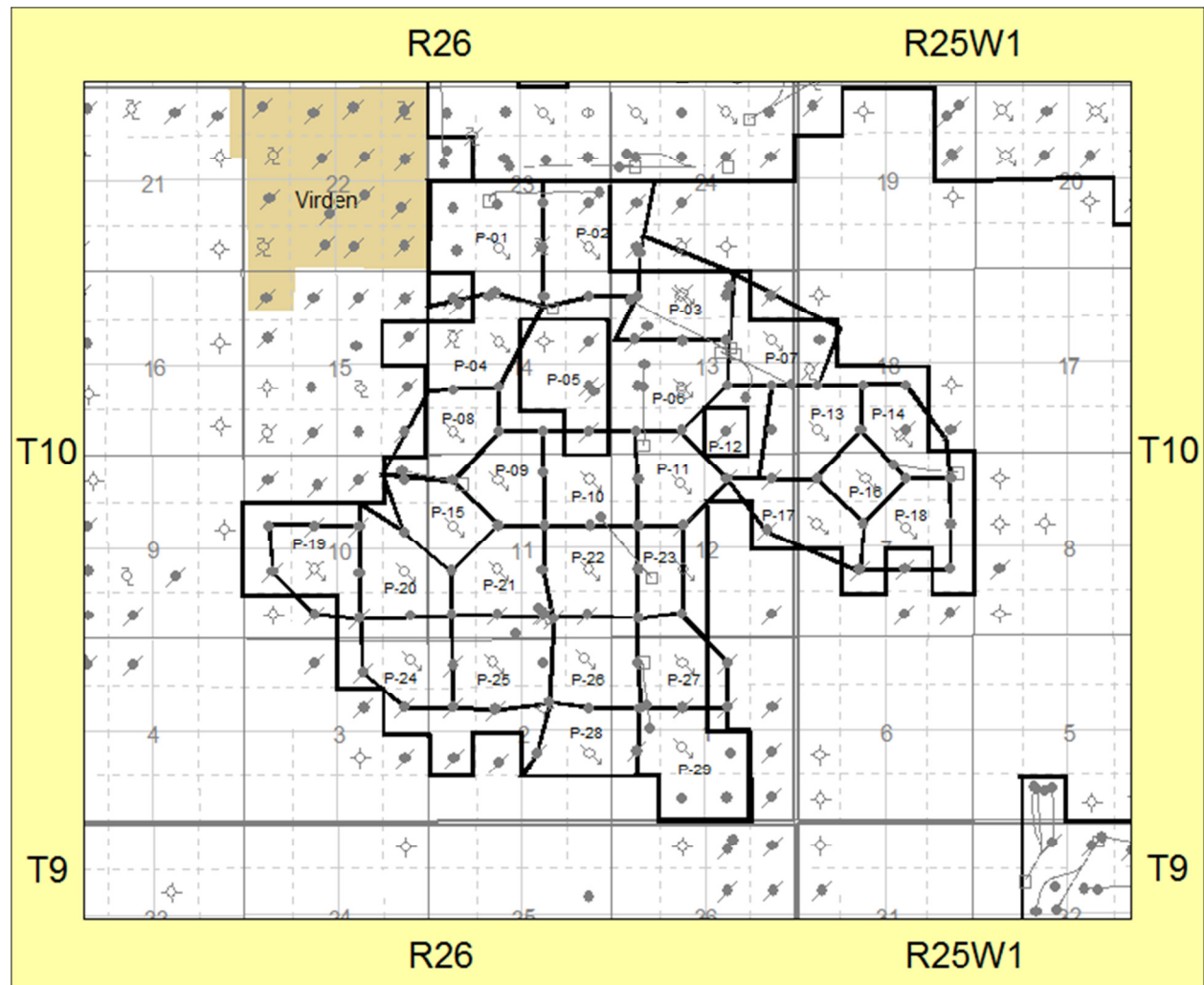
The voidage replacement ratio (VRR) in 2014 had a wide range, 0.97 to 1.43. At the end of the year the VRR was 1.14, the changes seen in VRR may have resulted from the flood and the battery upgrade that this unit had in 2014. The cumulative VRR at year end was 0.8. The high reservoir pressure is inconsistent with the cumulative VRR less than 1.0.

There is partial pressure support for the field from an aquifer on the west side of the unit and the water influx from the aquifer is not accounted for in the VRR calculation. An oil formation volume factor of $1.06 \text{ rm}^3/\text{sm}^3$ and a water formation volume factor of $1.04 \text{ rm}^3/\text{sm}^3$ were used in the VRR calculations.

2014 Well Servicing

UWI	Licence	Unit	Operation	Date	Objective
100/03-23-010-26W1/00	000734	VRU#3	Equipment Pressure Integrity Test	11-APR-14	
100/04-14-010-26W1/00	001039	VRU#3	Equipment Pressure Integrity Test	23-JUN-14	
100/04-18-010-25W1/00	000938	VRU#3	Equipment Pressure Integrity Test	11-APR-14	
100/05-13-010-26W1/00	001017	VRU#3	Inhibitor Squeeze	04-FEB-14	
100/05-13-010-26W1/00	001017	VRU#3	Inhibitor Squeeze	09-DEC-14	
100/06-11-010-26W1/00	001198	VRU#3	Equipment Pressure Integrity Test		Equipment Pressure Integrity Test
100/06-12-010-26W1/00	001292	VRU#3	Equipment Pressure Integrity Test	10-APR-14	
100/06-13-010-26W1/00	000772	VRU#3	Equipment Pressure Integrity Test	10-APR-14	
100/08-10-010-26W1/00	001322	VRU#3	Equipment Pressure Integrity Test	10-APR-14	
100/08-11-010-26W1/00	001204	VRU#3	Equipment Pressure Integrity Test	10-APR-14	
100/10-07-010-25W1/00	001093	VRU#3	Equipment Pressure Integrity Test	23-JUN-14	
100/11-14-010-26W1/00	000892	VRU#3	Equipment Pressure Integrity Test	27-AUG-14	
100/12-07-010-25W1/00	001195	VRU#3	Equipment Pressure Integrity Test	10-APR-14	
100/12-11-010-26W1/00	001237	VRU#3	Equipment Pressure Integrity Test	27-AUG-14	
100/14-01-010-26W1/00	001224	VRU#3	Equipment Pressure Integrity Test	10-APR-14	
100/14-02-010-26W1/00	001188	VRU#3	Equipment Pressure Integrity Test	10-APR-14	
100/14-07-010-25W1/00	001037	VRU#3	Equipment Pressure Integrity Test	23-JUN-14	
100/14-11-010-26W1/00	001202	VRU#3	Equipment Pressure Integrity Test	10-APR-14	
100/14-12-010-26W1/00	001192	VRU#3	Equipment Pressure Integrity Test	10-APR-14	
100/14-13-010-26W1/00	000669	VRU#3	Equipment Pressure Integrity Test	11-APR-14	
100/16-11-010-26W1/00	001211	VRU#3	Equipment Pressure Integrity Test	23-JUN-14	
102/02-18-010-25W1/00	002141	VRU#3	Equipment Pressure Integrity Test	11-APR-14	
102/04-12-010-26W1/00	10204	VRU#3	Equip & Tie-In		
102/04-12-010-26W1/00	10204	VRU#3	Initial Completion		SCALLION COMPLETION
102/04-12-010-26W1/00	10204	VRU#3	Construction		
102/04-12-010-26W1/00	10204	VRU#3	Drilling - original	26-NOV-14	
102/05-14-010-26W1/00	9690	VRU#3	Cathodic		
102/07-11-010-26W1/00	9931	VRU#3	Drilling - original	15-DEC-14	
102/07-11-010-26W1/00	9931	VRU#3	Construction		
102/07-11-010-26W1/00	9931	VRU#3	Initial Completion	10-JAN-15	VIRDEN COMPLETION
102/11-02-010-26W1/00	10052	VRU#3	Equip Only		
102/11-02-010-26W1/00	10052	VRU#3	Initial Completion		VIRDEN COMPLETION
102/11-02-010-26W1/00	10052	VRU#3	Construction		
102/11-02-010-26W1/00	10052	VRU#3	Drilling - original	23-NOV-14	
102/14-12-010-26W1/00	10053	VRU#3	Equip & Tie-In		
102/14-12-010-26W1/00	10053	VRU#3	Initial Completion	07-NOV-14	VIRDEN COMPLETION
102/14-12-010-26W1/00	10053	VRU#3	Construction		
102/14-12-010-26W1/00	10053	VRU#3	Drilling - original	11-OCT-14	
102/15-07-010-25W1/00	005109	VRU#3	Downsize Pump	07-AUG-14	
102/15-07-010-25W1/00	005109	VRU#3	Tubing Repair	29-MAY-14	
102/15-07-010-25W1/00	005109	VRU#3	Tubing Repair	21-FEB-14	
103/05-18-010-25W1/00	10124	VRU#3	Equip Only		
103/05-18-010-25W1/00	10124	VRU#3	Initial Completion	20-NOV-14	SCALLION COMPLETION
103/05-18-010-25W1/00	10124	VRU#3	Construction		
103/05-18-010-25W1/00	10124	VRU#3	Drilling - original	13-NOV-14	

Waterflood Pattern Map

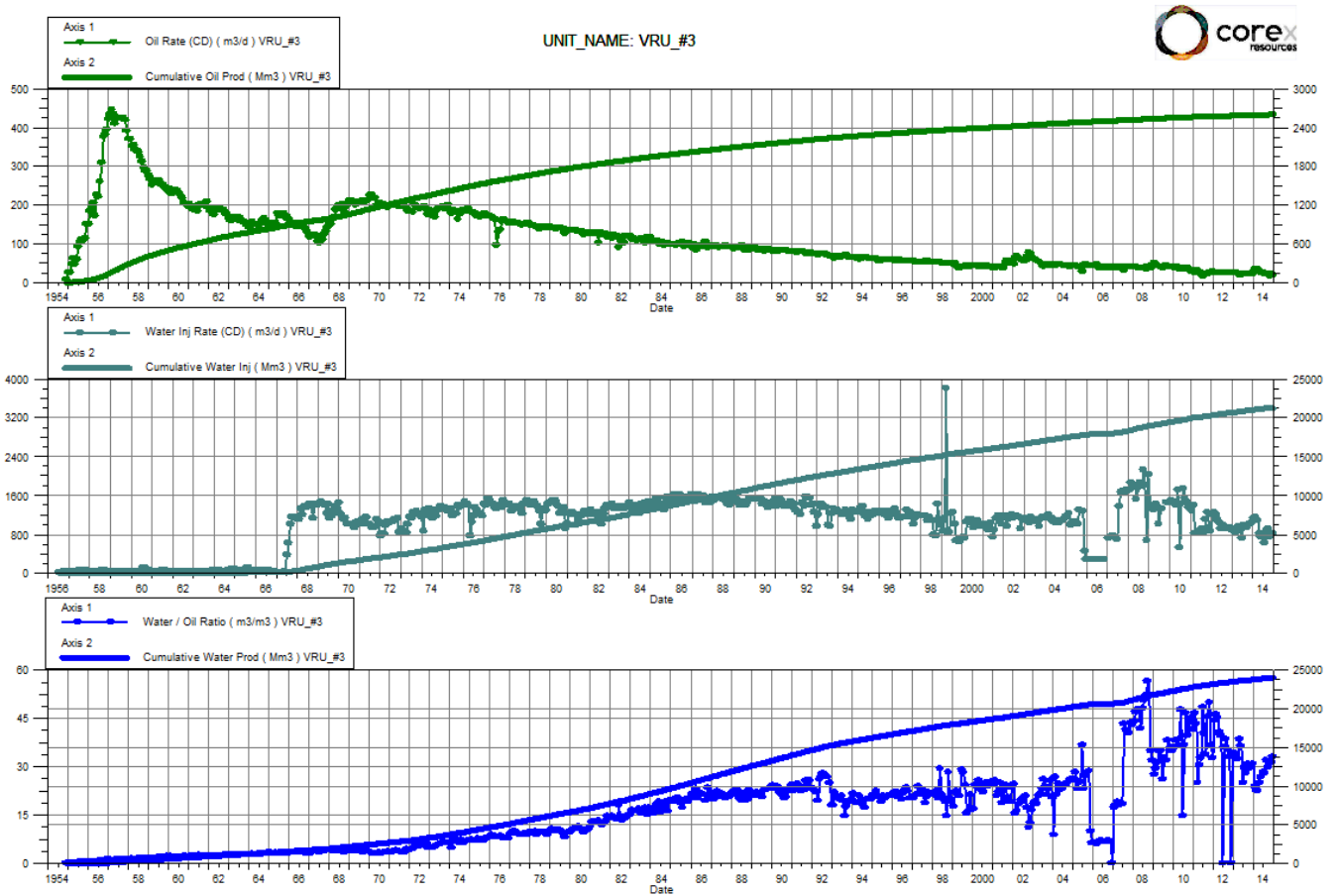


Waterflood Pattern Table

Pattern	Well
P-01	100/03-23-010-26W1/00
P-02	100/01-23-010-26W1/00
P-03	100/14-13-010-26W1/00
P-03	102/14-13-010-26W1/00
P-04	100/11-14-010-26W1/00
P-06	100/06-13-010-26W1/00
P-07	100/09-13-010-26W1/00
P-08	100/04-14-010-26W1/00
P-09	100/14-11-010-26W1/00
P-10	100/16-11-010-26W1/00
P-11	100/14-12-010-26W1/00
P-13	100/04-18-010-25W1/00
P-14	102/02-18-010-25W1/00
P-15	100/12-11-010-26W1/00
P-16	100/14-07-010-25W1/00
P-17	100/12-07-010-25W1/00
P-18	100/10-07-010-25W1/00
P-19	100/06-10-010-26W1/00
P-20	100/08-10-010-26W1/00
P-21	100/06-11-010-26W1/00
P-22	100/08-11-010-26W1/00
P-23	100/06-12-010-26W1/00
P-24	100/16-03-010-26W1/00
P-25	100/14-02-010-26W1/00
P-26	100/16-02-010-26W1/00
P-27	100/14-01-010-26W1/00
P-28	100/08-02-010-26W1/00
P-29	100/06-01-010-26W1/00

Total for VRU #3

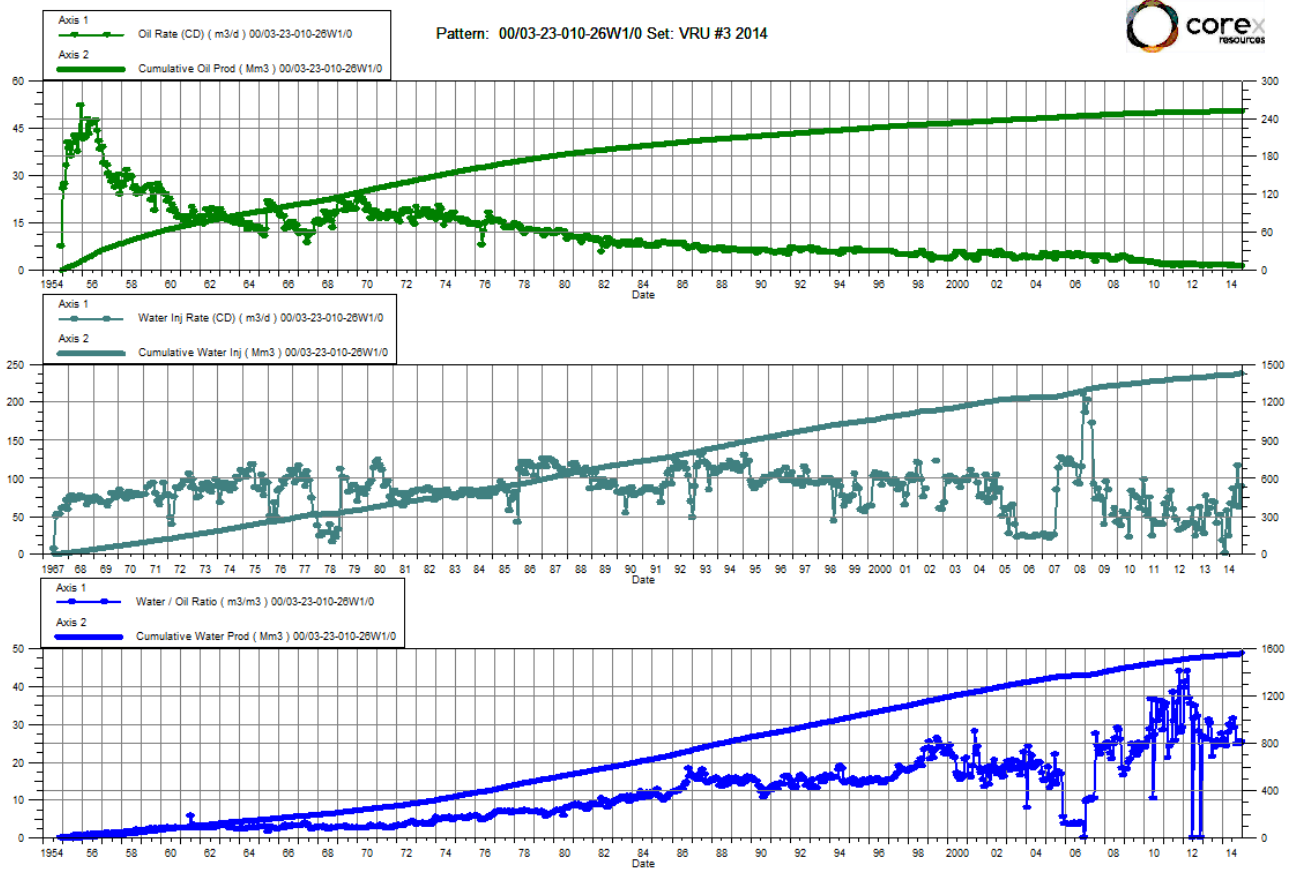
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	32.3	2597.16	767.1	23791.00	1142.81	21058.9	23.78	1.43	0.80	--
2/28/2014	34.7	2598.13	790.3	23813.13	1161.50	21091.4	22.79	1.41	0.80	124
3/31/2014	34.9	2599.22	780.2	23837.31	1088.32	21125.2	22.36	1.33	0.80	3,450
4/30/2014	30.4	2600.13	760.8	23860.14	811.07	21149.5	25.05	1.02	0.80	3,121
5/31/2014	27.4	2600.98	729.8	23882.76	735.22	21172.3	26.68	0.97	0.80	2,015
6/30/2014	26.7	2601.78	752.8	23905.35	767.22	21195.3	28.16	0.98	0.80	2,474
7/31/2014	22.4	2602.47	626.0	23924.75	628.48	21214.8	27.95	0.97	0.80	2,292
8/31/2014	24.0	2603.21	764.7	23948.45	852.55	21241.2	31.93	1.08	0.80	1,299
9/30/2014	23.4	2603.92	697.4	23969.38	901.83	21268.3	29.86	1.25	0.80	3,530
10/31/2014	18.7	2604.49	591.7	23987.72	733.10	21291.0	31.71	1.20	0.80	3,630
11/30/2014	22.2	2605.16	690.2	24008.43	785.83	21314.6	31.12	1.10	0.80	3,583
12/31/2014	21.5	2605.83	705.8	24030.31	826.23	21340.2	32.83	1.14	0.80	3,327



VRU #3

Pattern P-01 – 00/03-23-010-26W1/0

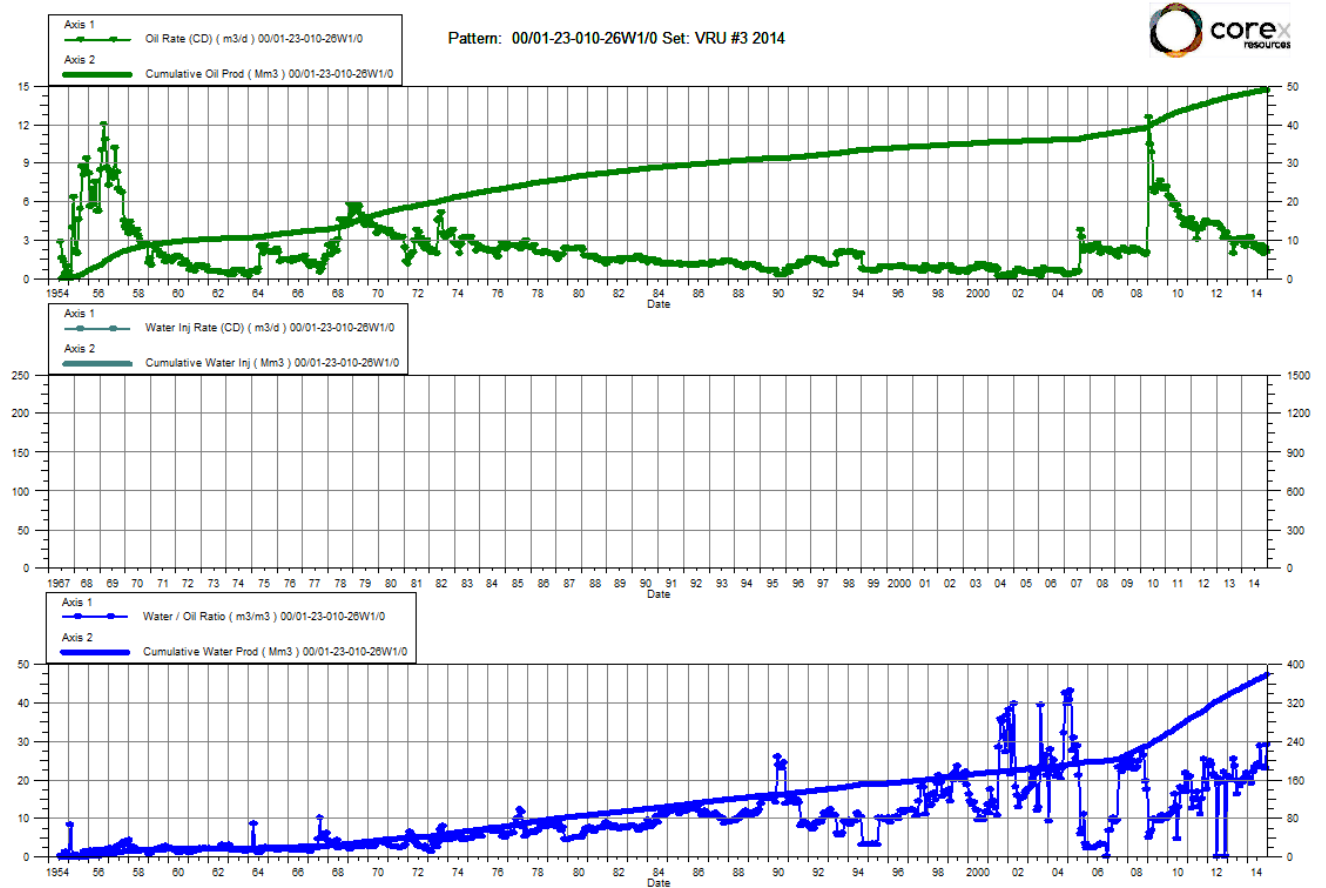
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	1.7	251.73	44.4	1546.65		1411.1	26.05		0.78	--
2/28/2014	1.6	251.77	38.8	1547.74	51.73	1412.5	24.59	1.28	0.78	121
3/31/2014	1.7	251.83	41.9	1549.04	17.75	1413.1	24.09	0.41	0.78	3,361
4/30/2014	1.6	251.87	43.0	1550.33	0.65	1413.1	27.80	0.02	0.78	2,210
5/31/2014	1.4	251.92	43.0	1551.66	57.48	1414.9	29.97	1.29	0.78	2,477
6/30/2014	1.6	251.96	45.7	1553.03	24.02	1415.6	29.07	0.51	0.78	1,793
7/31/2014	1.3	252.00	40.4	1554.28	66.35	1417.6	31.35	1.59	0.78	1,600
8/31/2014	1.5	252.05	42.6	1555.61	86.35	1420.3	28.99	1.96	0.78	1,600
9/30/2014	1.5	252.09	37.2	1556.72	62.85	1422.2	24.66	1.62	0.78	1,613
10/31/2014	1.2	252.13	30.9	1557.68	117.10	1425.8	25.50	3.65	0.79	2,065
11/30/2014	1.4	252.17	35.0	1558.73	61.19	1427.7	24.63	1.68	0.79	3,960
12/31/2014	1.4	252.22	35.6	1559.83	88.61	1430.4	25.23	2.39	0.79	2,806



VRU #3

Pattern P-02 – 00/01-23-010-26W1/0

Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	3.2	48.29	65.9	358.84		0.0	20.50		0.00	--
2/28/2014	3.3	48.38	65.5	360.68		0.0	20.07		0.00	161
3/31/2014	3.3	48.48	62.0	362.60		0.0	18.91		0.00	4,461
4/30/2014	2.9	48.57	62.5	364.47		0.0	21.89		0.00	3,257
5/31/2014	2.4	48.64	56.5	366.23		0.0	23.32		0.00	2,042
6/30/2014	2.4	48.71	56.5	367.92		0.0	23.81		0.00	3,300
7/31/2014	2.5	48.79	59.8	369.77		0.0	24.23		0.00	3,274
8/31/2014	2.2	48.86	61.7	371.69		0.0	28.62		0.00	2,526
9/30/2014	2.6	48.94	60.7	373.51		0.0	23.34		0.00	3,297
10/31/2014	2.0	49.00	47.4	374.97		0.0	23.33		0.00	3,226
11/30/2014	2.4	49.07	54.9	376.62		0.0	22.83		0.00	3,967
12/31/2014	2.0	49.13	59.0	378.45		0.0	28.91		0.00	2,997

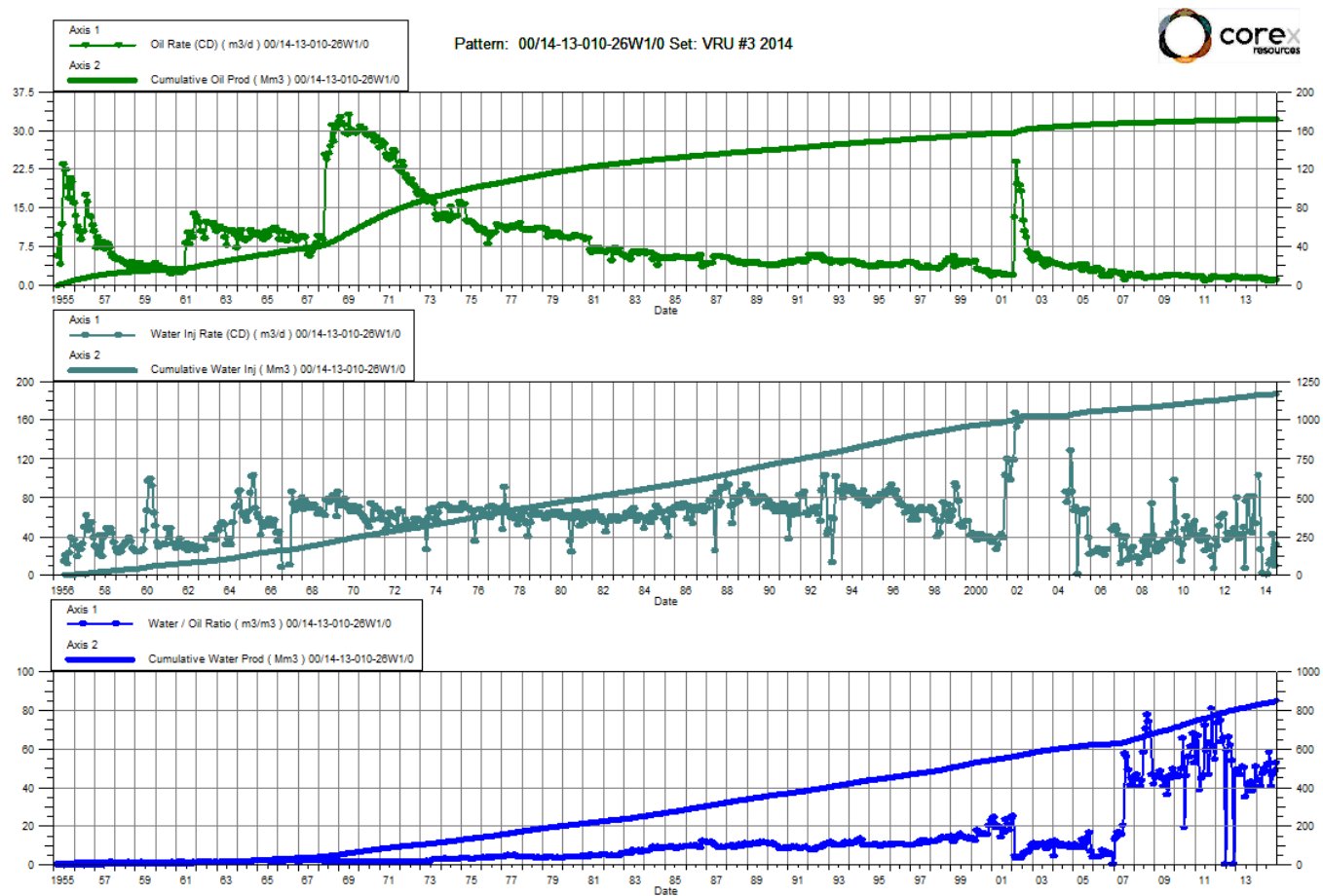


VRU #3

Pattern P-03 – 00/14-13-010-26W1/0

P-03 – 02/14-13-010-26W1/0

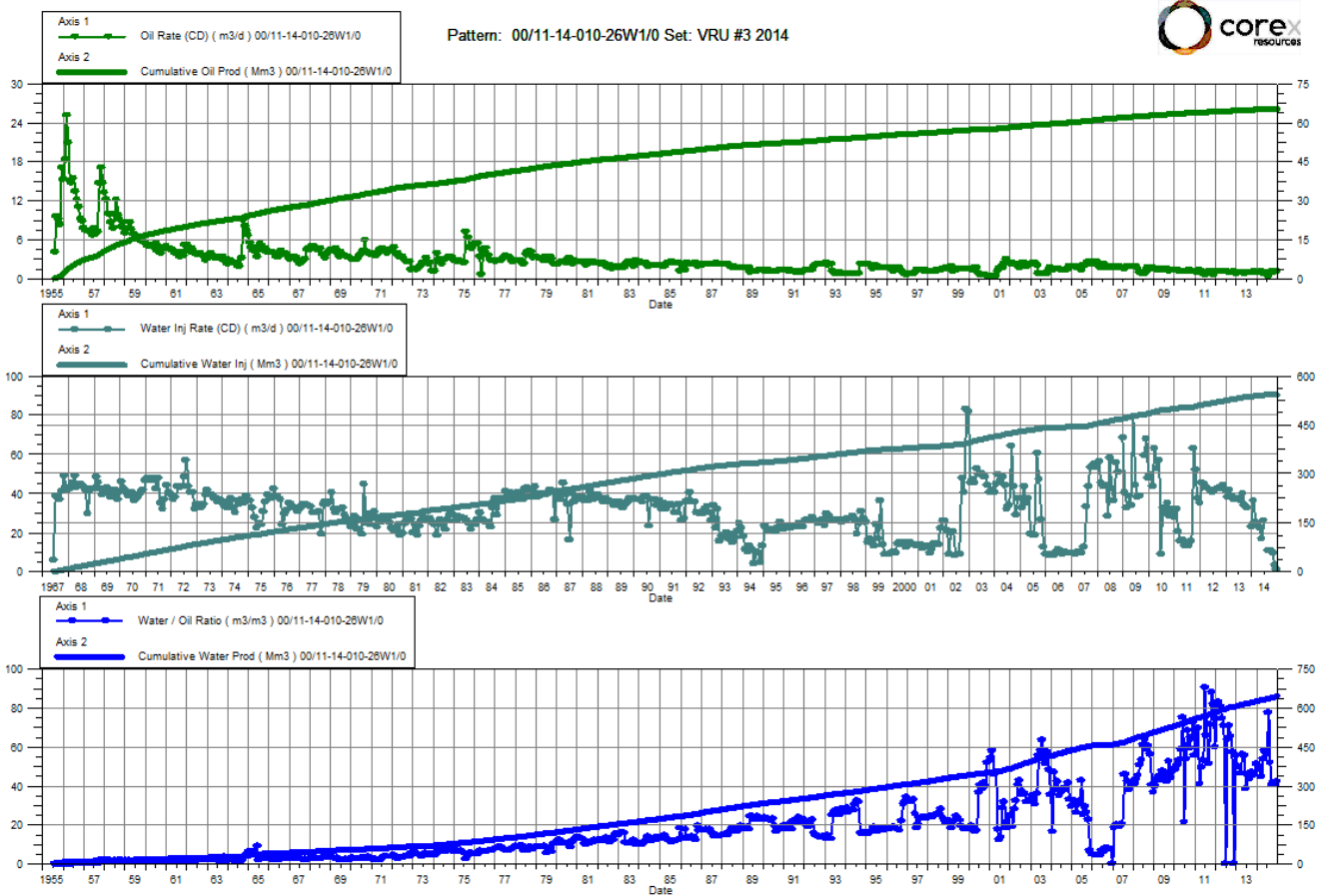
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	1.5	171.67	66.1	828.47		1161.7	44.10		1.16	--
2/28/2014	1.5	171.71	65.8	830.31	102.47	1164.6	43.10	1.52	1.16	136
3/31/2014	1.5	171.76	62.2	832.24	26.53	1165.4	40.64	0.42	1.16	3,777
4/30/2014	1.4	171.80	63.4	834.14	1.87	1165.5	46.88	0.03	1.16	3,063
5/31/2014	1.2	171.83	57.5	835.92	0.48	1165.5	49.79	0.01	1.15	2,023
6/30/2014	1.3	171.87	61.0	837.75	0.56	1165.5	48.07	0.01	1.15	2,677
7/31/2014	0.9	171.90	48.1	839.24	0.10	1165.5	51.88	0.00	1.15	2,013
8/31/2014	1.2	171.94	67.3	841.33	11.56	1165.9	57.96	0.17	1.15	2,419
9/30/2014	1.0	171.97	42.0	842.59	14.85	1166.3	40.39	0.35	1.15	3,017
10/31/2014	0.9	172.00	42.6	843.91	42.07	1167.6	46.61	0.97	1.15	3,506
11/30/2014	1.2	172.03	55.7	845.58	8.49	1167.9	48.38	0.15	1.14	3,603
12/31/2014	1.1	172.06	56.5	847.33	30.67	1168.8	52.36	0.53	1.14	871



VRU #3

Pattern P-04 – 00/11-14-010-26W1/0

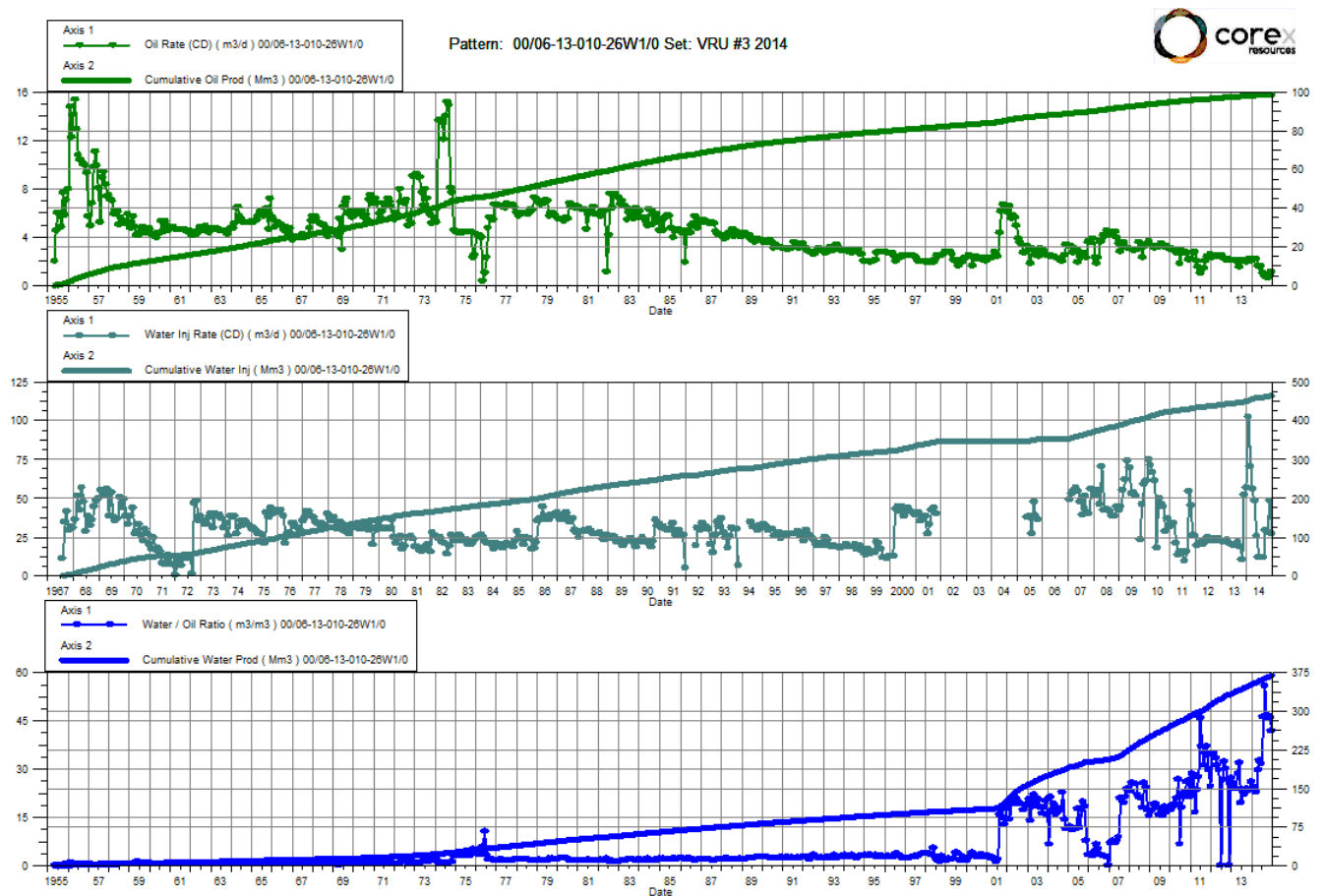
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	1.1	65.18	54.5	627.55	36.51	539.0	48.54	0.66	0.78	--
2/28/2014	1.0	65.21	48.9	628.92	25.54	539.7	49.42	0.51	0.78	--
3/31/2014	1.2	65.24	51.5	630.52	24.25	540.4	44.87	0.46	0.78	--
4/30/2014	0.9	65.27	50.8	632.04	22.45	541.1	53.73	0.43	0.78	--
5/31/2014	0.9	65.30	50.6	633.61	16.48	541.6	57.80	0.32	0.77	--
6/30/2014	1.0	65.33	53.9	635.23	26.19	542.4	55.93	0.48	0.77	--
7/31/2014	0.6	65.35	43.5	636.57		542.4	77.51		0.77	--
8/31/2014	0.9	65.37	46.5	638.02	10.60	542.7	51.89	0.22	0.77	548
9/30/2014	1.3	65.41	52.6	639.59	10.91	543.1	40.23	0.20	0.77	3,400
10/31/2014	1.1	65.45	43.6	640.94	9.42	543.4	41.28	0.21	0.77	3,400
11/30/2014	1.2	65.48	49.7	642.43	3.45	543.5	40.43	0.07	0.77	3,400
12/31/2014	1.2	65.52	49.7	643.97	1.10	543.5	42.46	0.02	0.77	3,400



VRU #3

Pattern P-06 – 00/06-13-010-26W1/0

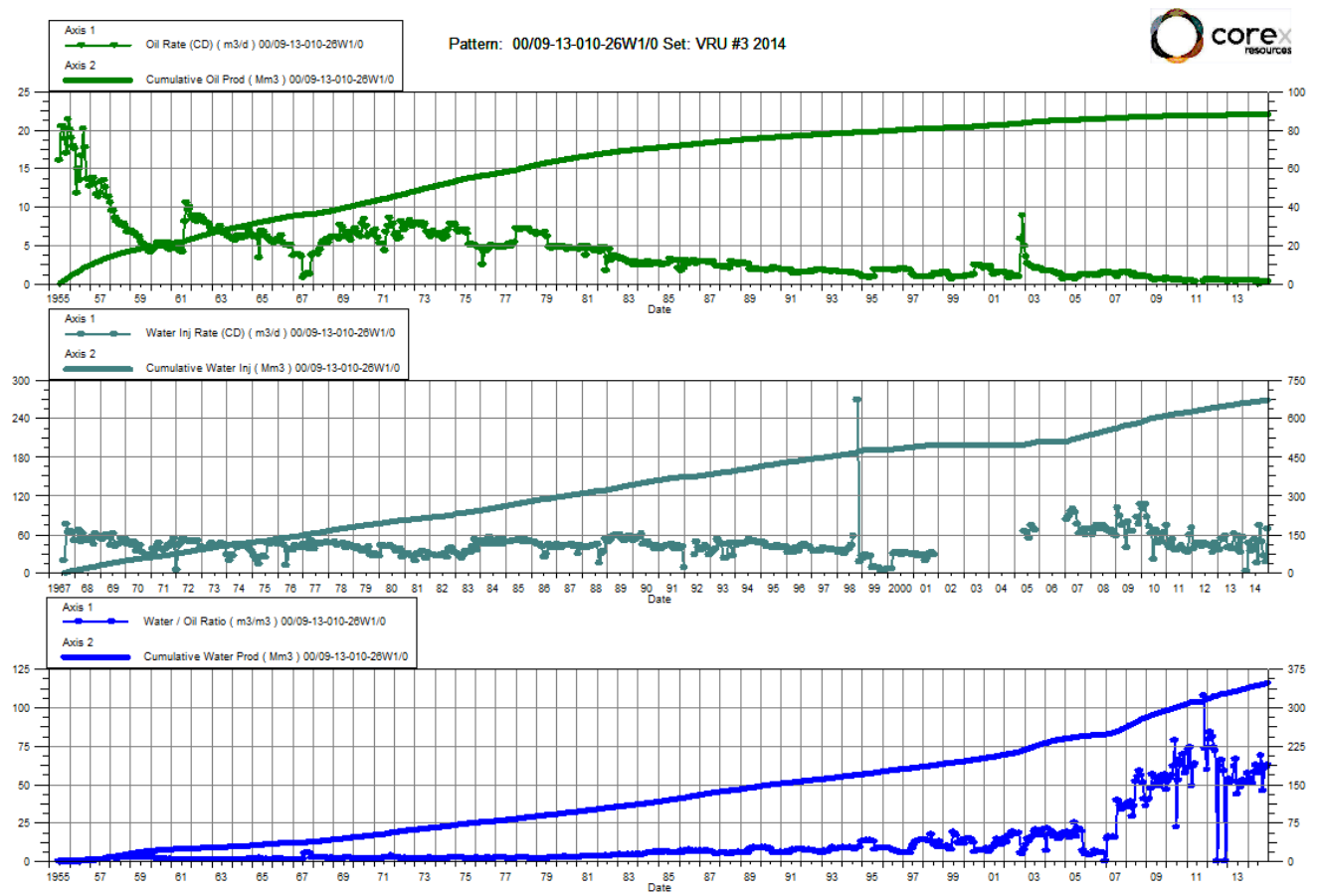
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	2.2	98.29	53.1	353.07	102.93	453.8	24.57	1.86	1.00	--
2/28/2014	2.2	98.35	52.8	354.55	70.47	455.8	24.06	1.28	1.00	--
3/31/2014	2.2	98.42	50.0	356.10	55.65	457.5	22.74	1.07	1.00	--
4/30/2014	1.7	98.47	49.7	357.59	48.36	459.0	29.75	0.94	1.00	--
5/31/2014	1.5	98.51	48.4	359.09	25.21	459.7	32.55	0.51	1.00	--
6/30/2014	1.7	98.56	52.8	360.68	11.68	460.1	31.51	0.21	1.00	--
7/31/2014	1.1	98.60	49.9	362.23	11.41	460.4	46.20	0.22	1.00	--
8/31/2014	0.8	98.62	44.7	363.61	11.92	460.8	55.88	0.26	0.99	548
9/30/2014	1.0	98.65	45.3	364.97	29.59	461.7	45.76	0.64	0.99	3,400
10/31/2014	0.7	98.67	31.4	365.95	27.43	462.5	46.63	0.85	0.99	3,400
11/30/2014	1.0	98.70	43.3	367.25	48.47	464.0	45.72	1.10	0.99	3,400
12/31/2014	1.1	98.73	47.9	368.73	27.32	464.8	41.92	0.56	0.99	3,400



VRU #3

Pattern P-07 – 00/09-13-010-26W1/0

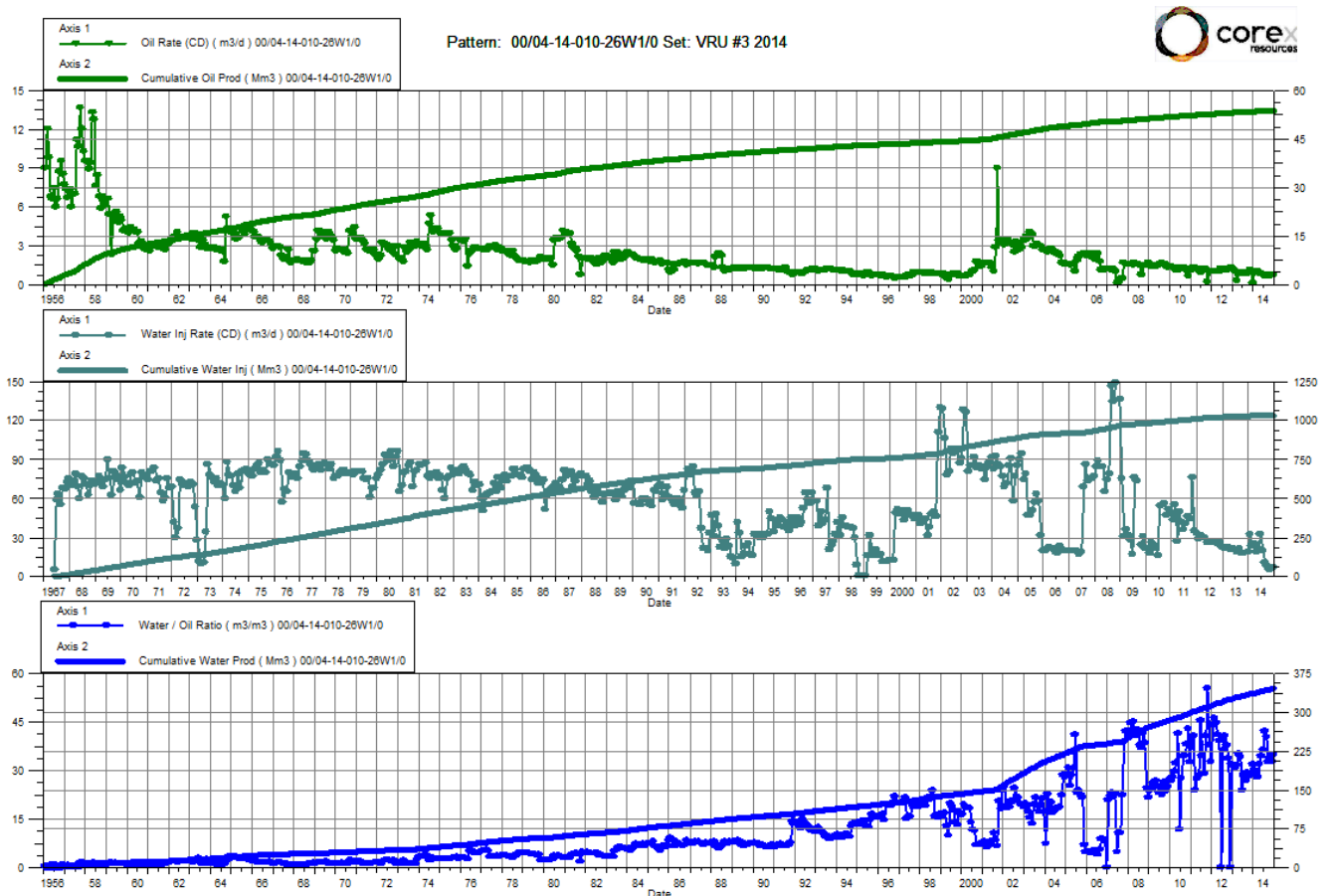
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.6	88.25	30.4	339.41		661.4	54.35		1.54	--
2/28/2014	0.6	88.26	30.2	340.26	3.00	661.5	53.08	0.10	1.54	146
3/31/2014	0.6	88.28	28.6	341.15	46.27	662.9	50.25	1.59	1.54	4,110
4/30/2014	0.5	88.30	29.2	342.02	33.56	663.9	57.74	1.13	1.54	4,323
5/31/2014	0.5	88.31	29.1	342.92	41.25	665.2	62.46	1.39	1.54	2,135
6/30/2014	0.5	88.33	31.0	343.85	52.02	666.7	60.36	1.65	1.54	3,193
7/31/2014	0.1	88.33	5.2	344.01	15.06	667.2	57.23	2.86	1.54	3,013
8/31/2014	0.5	88.34	33.1	345.04	73.82	669.5	68.84	2.20	1.54	3,419
9/30/2014	0.3	88.35	15.4	345.50	48.53	670.9	45.85	3.08	1.54	4,000
10/31/2014	0.4	88.37	24.3	346.26	26.61	671.8	60.04	1.08	1.54	4,000
11/30/2014	0.5	88.38	27.1	347.07	17.46	672.3	61.00	0.63	1.54	3,993
12/31/2014	0.5	88.39	29.4	347.98	68.58	674.4	62.35	2.30	1.54	3,806



VRU #3

Pattern P-08 – 00/04-14-010-26W1/0

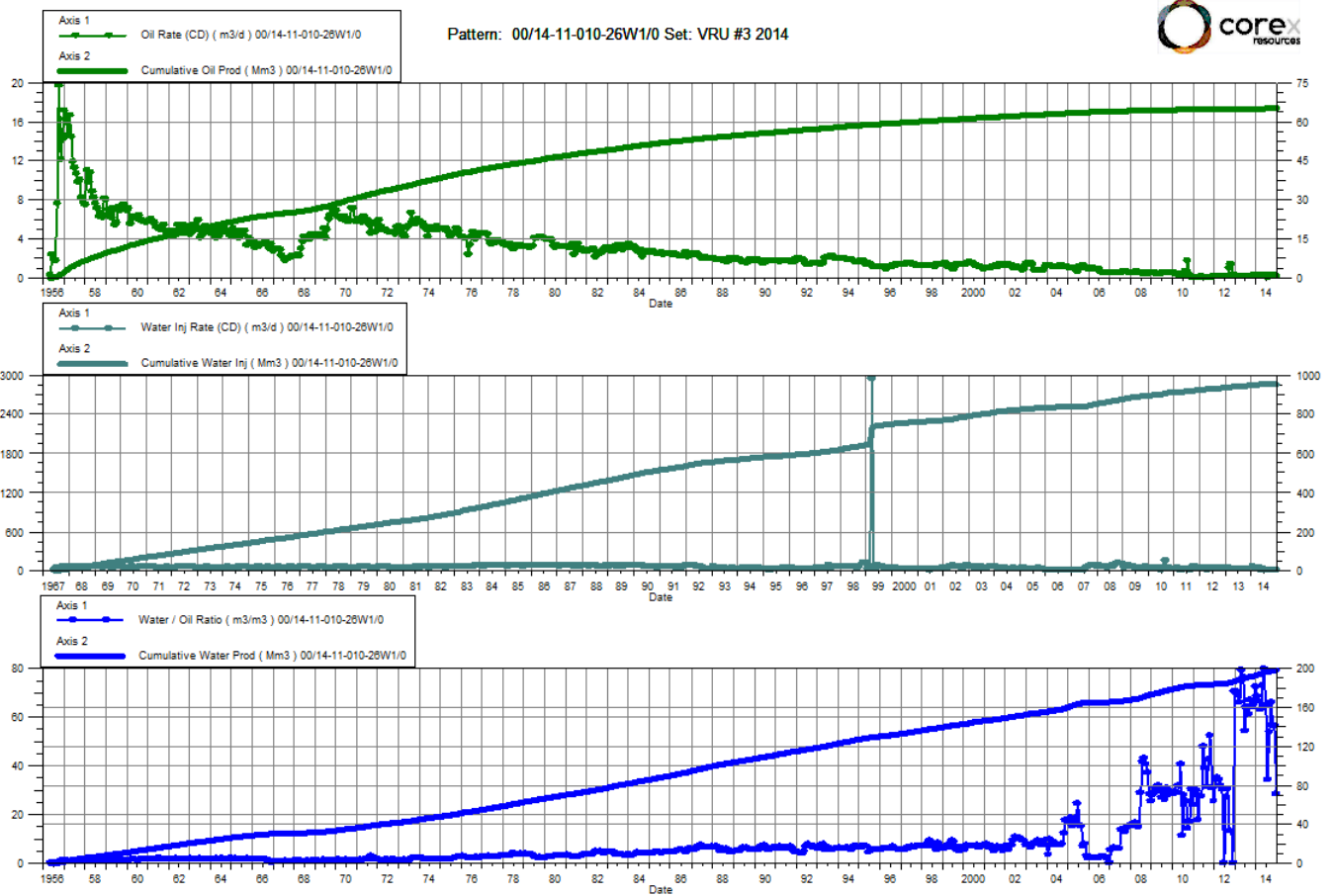
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	1.0	53.52	30.9	336.96	32.09	1029.6	30.14	1.00	2.63	--
2/28/2014	1.0	53.55	30.7	337.82	23.13	1030.2	29.47	0.73	2.63	--
3/31/2014	1.1	53.59	29.1	338.72	24.70	1031.0	27.82	0.82	2.62	--
4/30/2014	0.9	53.61	29.6	339.61	18.77	1031.5	31.99	0.61	2.62	--
5/31/2014	0.9	53.64	29.6	340.53	21.07	1032.2	34.62	0.69	2.61	--
6/30/2014	0.8	53.66	27.9	341.36	32.05	1033.2	36.38	1.12	2.61	--
7/31/2014	0.7	53.69	30.5	342.31	19.47	1033.8	42.14	0.62	2.60	--
8/31/2014	0.8	53.71	30.1	343.24	10.29	1034.1	40.26	0.33	2.60	597
9/30/2014	0.8	53.73	27.2	344.06	7.34	1034.3	32.80	0.26	2.59	3,700
10/31/2014	0.7	53.76	22.6	344.76	4.81	1034.4	33.62	0.21	2.59	3,700
11/30/2014	0.8	53.78	26.0	345.54	6.12	1034.6	32.79	0.23	2.58	3,700
12/31/2014	0.8	53.80	27.3	346.38	6.84	1034.8	34.91	0.24	2.58	3,700



VRU #3

Pattern P-09 – 00/14-11-010-26W1/0

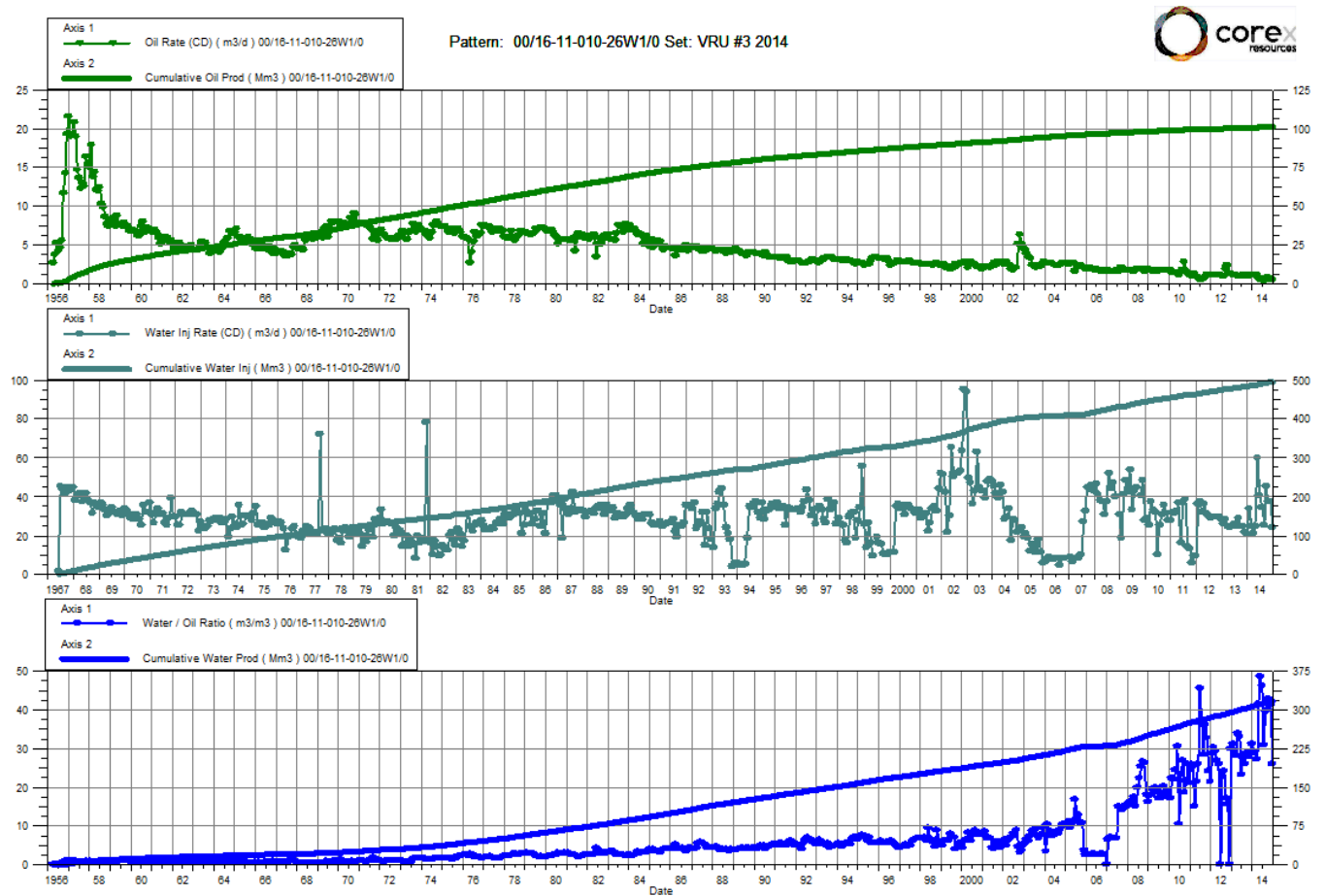
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.3	65.07	18.2	193.42	71.45	948.3	68.59	3.88	3.65	--
2/28/2014	0.3	65.08	18.0	193.93	49.98	949.7	66.71	2.73	3.65	--
3/31/2014	0.3	65.09	17.1	194.46	48.74	951.2	63.25	2.81	3.65	--
4/30/2014	0.2	65.10	17.4	194.98	41.22	952.4	72.60	2.34	3.65	--
5/31/2014	0.2	65.10	17.2	195.51	14.19	952.9	79.64	0.81	3.64	--
6/30/2014	0.3	65.11	19.7	196.10	22.55	953.5	64.52	1.13	3.63	--
7/31/2014	0.1	65.11	3.1	196.20	8.66	953.8	34.33	2.72	3.63	--
8/31/2014	0.3	65.12	13.9	196.63	10.29	954.1	53.54	0.73	3.63	613
9/30/2014	0.3	65.13	17.9	197.17	5.04	954.3	65.82	0.28	3.62	3,800
10/31/2014	0.3	65.14	15.8	197.66	4.25	954.4	56.83	0.26	3.62	3,800
11/30/2014	0.3	65.15	18.9	198.23	10.91	954.7	56.42	0.57	3.61	3,800
12/31/2014	0.2	65.16	6.0	198.41	11.09	955.1	28.57	1.79	3.61	3,800



VRU #3

Pattern P-10 – 00/16-11-010-26W1/0

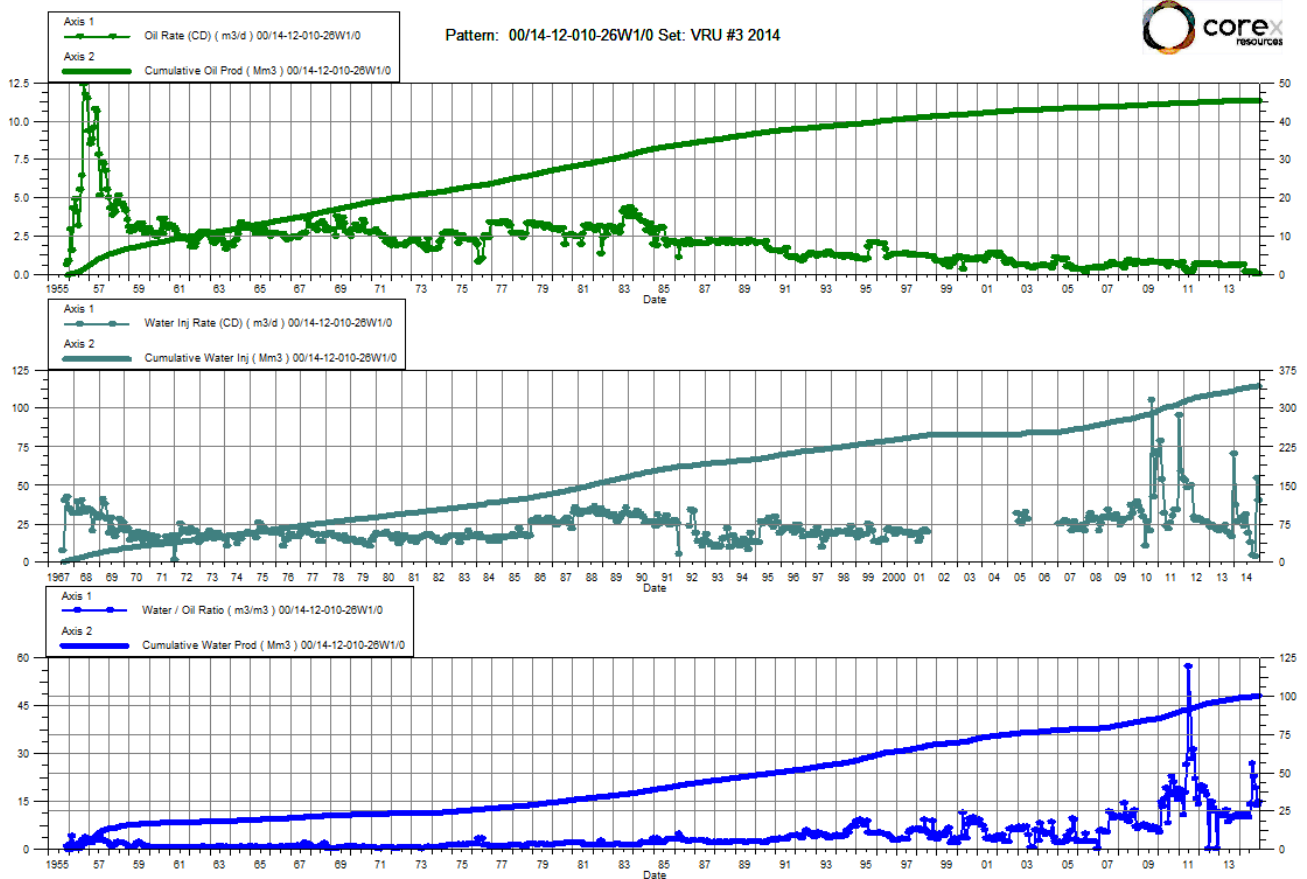
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	1.2	100.80	34.6	307.26	33.97	485.4	29.34	0.95	1.18	--
2/28/2014	1.2	100.83	34.4	308.22	24.65	486.1	28.75	0.69	1.18	--
3/31/2014	1.2	100.87	32.6	309.23	20.78	486.7	27.08	0.62	1.18	--
4/30/2014	0.7	100.89	29.0	310.10	24.50	487.4	41.63	0.83	1.18	--
5/31/2014	0.6	100.91	27.7	310.96	60.03	489.3	48.62	2.13	1.18	--
6/30/2014	0.7	100.93	30.9	311.88	40.54	490.5	46.20	1.28	1.18	--
7/31/2014	0.5	100.94	14.2	312.32	34.19	491.6	31.01	2.34	1.18	--
8/31/2014	0.7	100.97	27.8	313.19	25.57	492.4	39.50	0.90	1.18	613
9/30/2014	0.8	100.99	31.8	314.14	45.53	493.7	39.87	1.40	1.18	3,800
10/31/2014	0.5	101.01	23.2	314.86	37.25	494.9	42.90	1.57	1.18	3,800
11/30/2014	0.7	101.03	27.8	315.69	37.42	496.0	41.18	1.31	1.19	3,800
12/31/2014	0.6	101.05	15.9	316.19	24.17	496.8	25.97	1.46	1.19	3,800



VRU #3

Pattern P-11 – 00/14-12-010-26W1/0

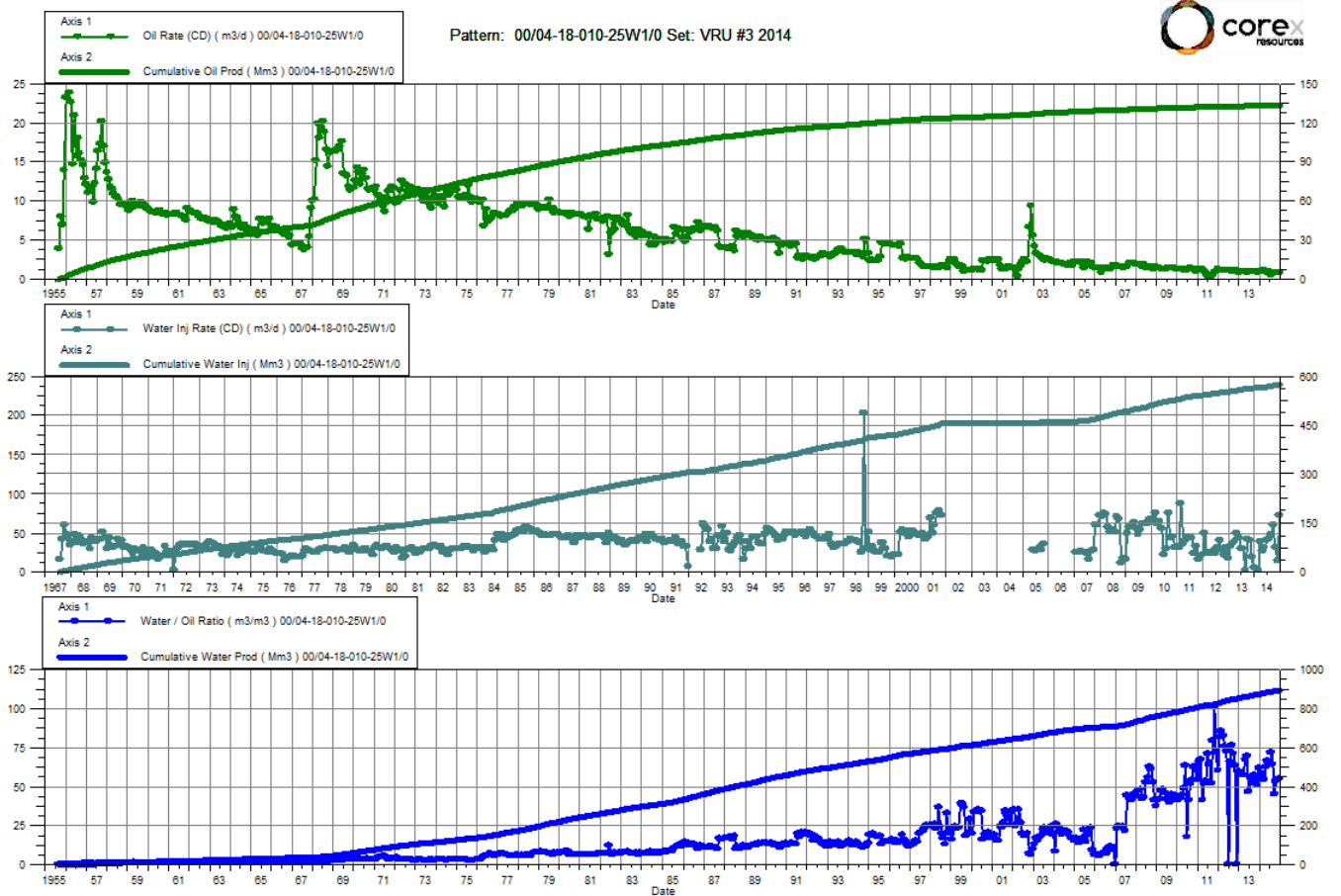
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.7	45.43	6.9	99.07	37.12	336.4	10.60	4.95	2.31	--
2/28/2014	0.7	45.45	6.8	99.26	26.21	337.1	10.41	3.51	2.32	--
3/31/2014	0.7	45.47	6.4	99.46	26.86	337.9	9.78	3.78	2.32	--
4/30/2014	0.2	45.48	2.3	99.53	28.18	338.8	10.90	11.08	2.32	--
5/31/2014	0.1	45.48	1.3	99.57	22.98	339.5	10.14	15.77	2.33	--
6/30/2014	0.1	45.48	1.4	99.61	31.09	340.4	9.77	19.88	2.33	--
7/31/2014	0.1	45.49	1.4	99.65	18.36	341.0	13.80	12.59	2.34	--
8/31/2014	0.2	45.49	4.8	99.80	12.28	341.4	26.89	2.46	2.34	565
9/30/2014	0.2	45.50	5.3	99.96	4.35	341.5	22.73	0.79	2.33	3,500
10/31/2014	0.1	45.50	1.4	100.00	3.48	341.6	18.94	2.33	2.33	3,500
11/30/2014	0.1	45.50	1.0	100.04	54.37	343.3	13.71	49.22	2.34	3,500
12/31/2014	0.1	45.51	1.1	100.07	39.71	344.5	14.52	34.44	2.35	3,500



VRU #3

Pattern P-13 – 00/04-18-010-26W1/0

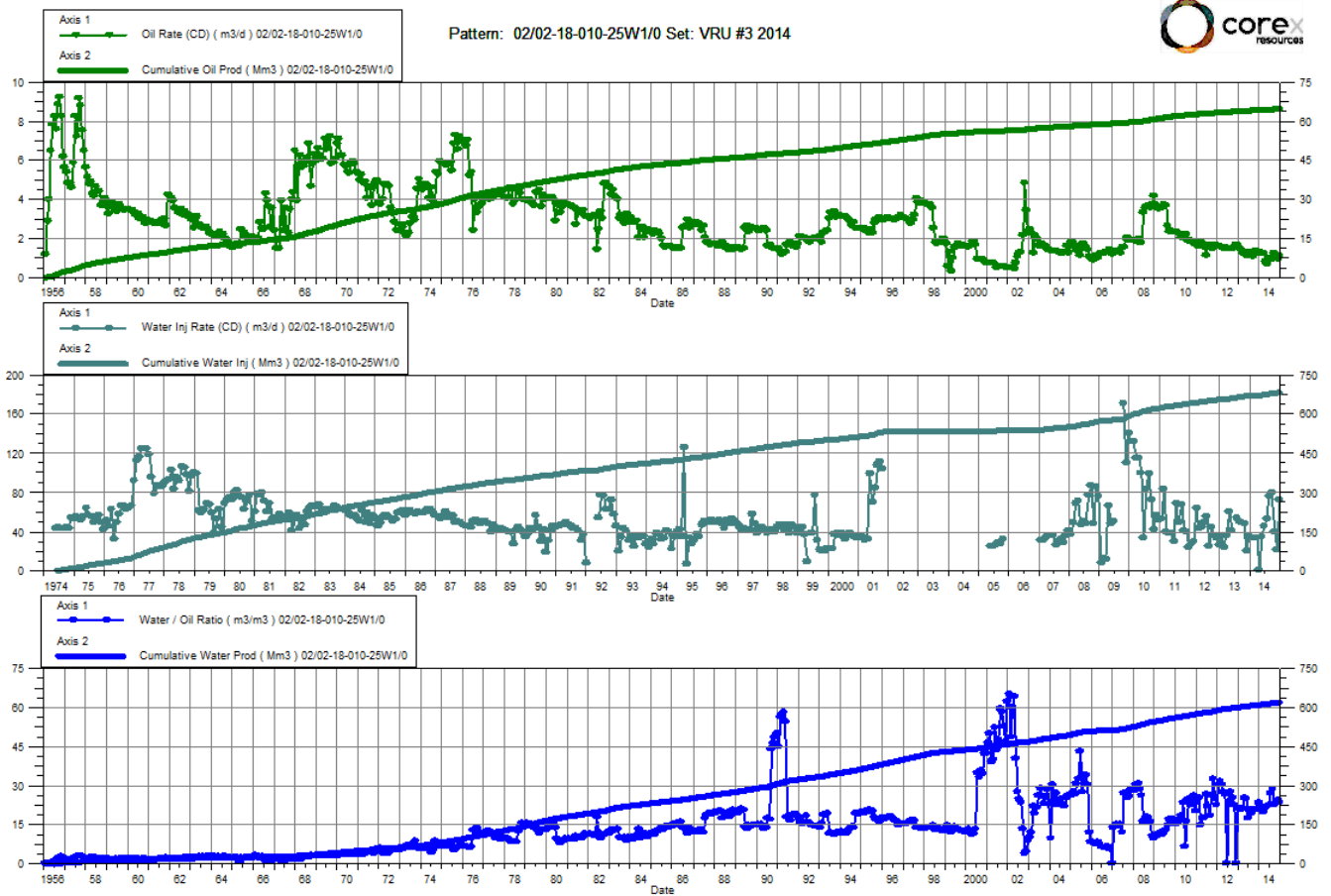
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	1.1	133.26	63.5	876.09		563.8	58.64		0.56	--
2/28/2014	1.1	133.29	63.2	877.85	2.63	563.9	57.34	0.04	0.56	129
3/31/2014	1.1	133.33	59.8	879.71	38.15	565.1	54.22	0.63	0.56	3,619
4/30/2014	1.0	133.36	60.9	881.53	26.11	565.9	62.32	0.42	0.56	4,137
5/31/2014	0.9	133.38	59.0	883.36	31.44	566.9	66.72	0.53	0.56	2,316
6/30/2014	1.0	133.41	60.7	885.18	40.35	568.1	63.86	0.65	0.56	2,813
7/31/2014	0.5	133.43	38.1	886.37	41.68	569.4	72.00	1.08	0.56	3,194
8/31/2014	0.9	133.46	58.5	888.18	47.79	570.8	64.18	0.80	0.56	3,016
9/30/2014	0.8	133.48	37.7	889.31	60.43	572.7	45.39	1.57	0.56	3,503
10/31/2014	0.8	133.51	42.7	890.64	31.63	573.6	53.23	0.73	0.56	3,548
11/30/2014	0.9	133.53	47.8	892.07	15.09	574.1	54.58	0.31	0.56	2,040
12/31/2014	0.9	133.56	51.6	893.67	71.82	576.3	55.12	1.37	0.56	3,206



VRU #3

Pattern P-14 – 02/02-18-010-26W1/0

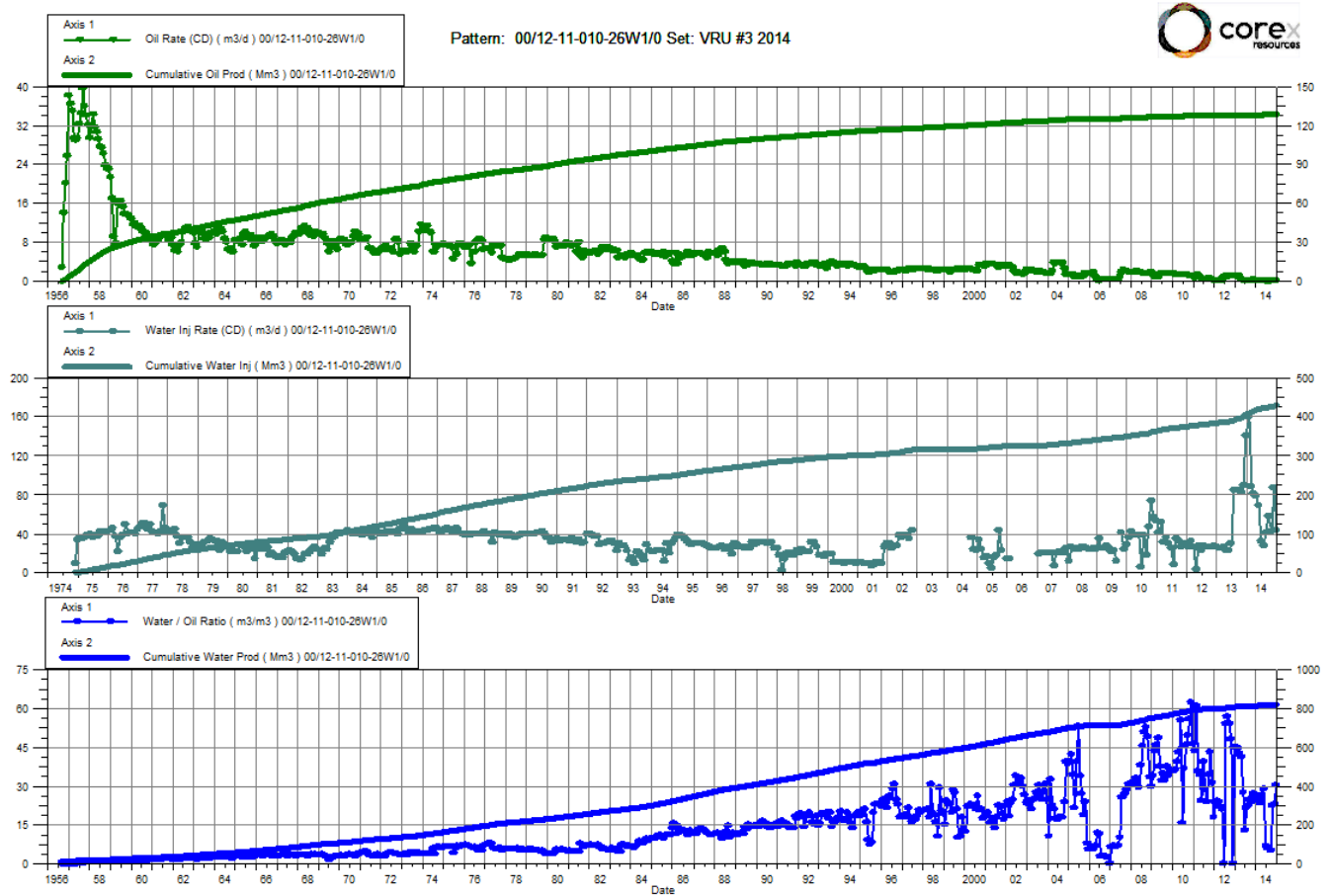
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	1.3	64.42	29.3	611.57		669.7	21.91		0.99	--
2/28/2014	1.3	64.45	27.2	612.33	33.04	670.7	21.16	1.16	0.99	132
3/31/2014	1.3	64.49	24.7	613.10	33.69	671.7	19.81	1.30	0.99	3,703
4/30/2014	0.9	64.52	18.0	613.63	0.65	671.7	21.05	0.04	0.99	3,743
5/31/2014	0.7	64.54	15.7	614.12	34.12	672.8	21.98	2.07	0.99	2,119
6/30/2014	1.0	64.57	21.5	614.77	45.35	674.1	22.71	2.02	0.99	2,697
7/31/2014	1.0	64.60	27.7	615.63	52.49	675.8	27.28	1.83	0.99	2,606
8/31/2014	1.0	64.63	27.6	616.48	76.47	678.1	28.22	2.67	0.99	2,816
9/30/2014	1.3	64.67	28.6	617.34	79.37	680.5	22.49	2.65	1.00	3,320
10/31/2014	1.0	64.70	23.7	618.08	39.92	681.8	23.11	1.61	1.00	3,816
11/30/2014	1.0	64.73	23.6	618.78	20.96	682.4	24.28	0.85	1.00	1,350
12/31/2014	1.2	64.77	27.0	619.62	72.27	684.6	23.28	2.56	1.00	2,823



VRU #3

Pattern P-15 – 00/12-11-010-26W1/0

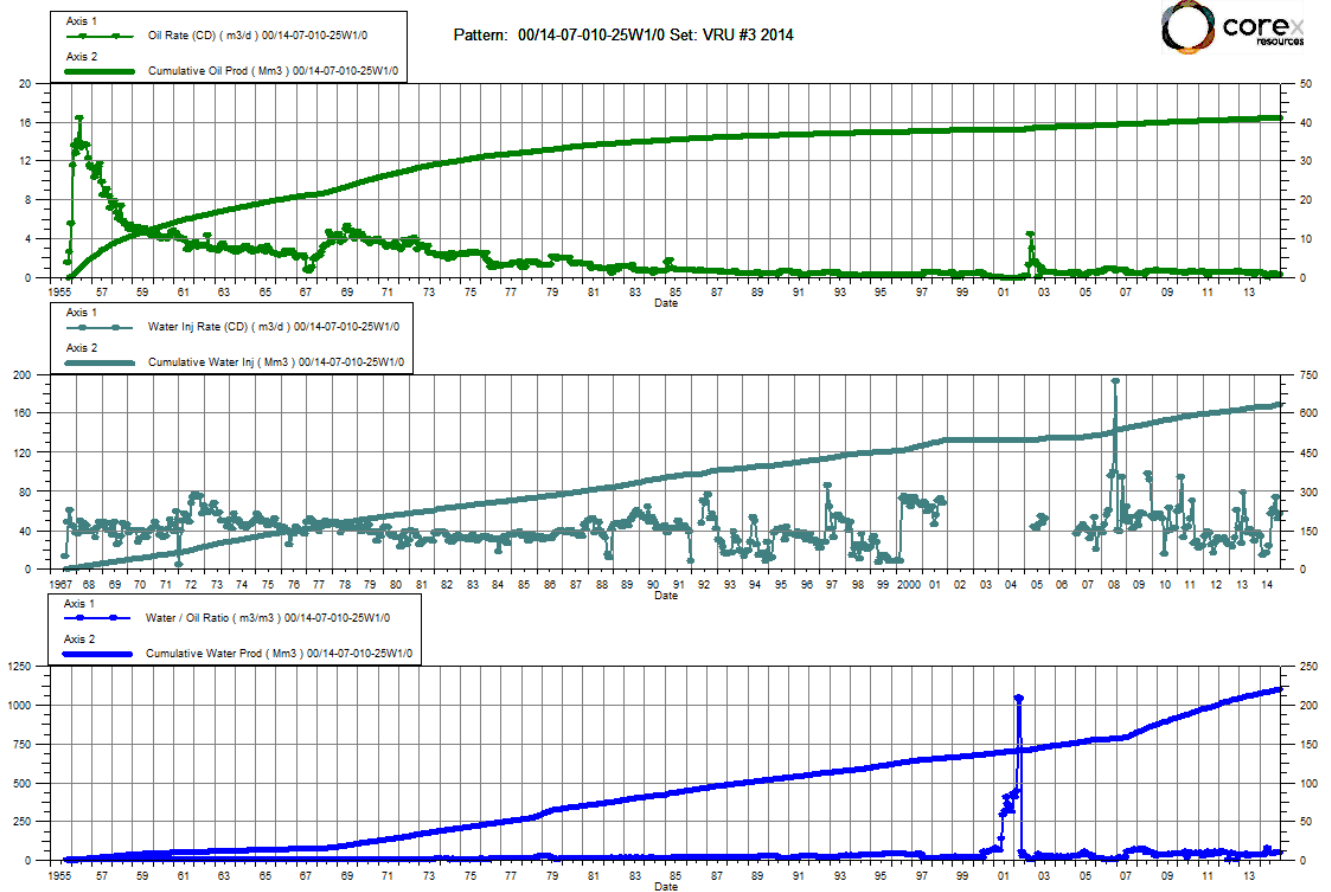
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.3	128.36	7.3	815.44	160.55	410.8	25.29	21.25	0.43	--
2/28/2014	0.3	128.37	7.1	815.64	88.98	413.3	24.68	12.01	0.44	--
3/31/2014	0.3	128.38	6.8	815.85	80.56	415.8	23.35	11.30	0.44	--
4/30/2014	0.3	128.38	7.0	816.06	78.78	418.2	26.82	10.90	0.44	--
5/31/2014	0.2	128.39	6.4	816.26	69.19	420.3	28.80	10.41	0.44	--
6/30/2014	0.1	128.39	0.5	816.27	32.16	421.3	7.10	61.01	0.45	--
7/31/2014	0.0	128.39	0.0	816.27	27.27	422.1	6.00	1825.07	0.45	--
8/31/2014	0.0	128.39	0.2	816.28	41.06	423.4	5.97	145.16	0.45	548
9/30/2014	0.1	128.40	0.3	816.29	57.71	425.1	4.89	140.94	0.45	3,400
10/31/2014	0.2	128.40	4.1	816.42	42.07	426.4	22.63	9.82	0.45	3,400
11/30/2014	0.3	128.41	5.9	816.59	86.71	429.0	23.09	14.14	0.45	3,400
12/31/2014	0.2	128.42	5.9	816.77	43.65	430.4	30.49	7.22	0.45	3,400



VRU #3

Pattern P-16 – 00/14-07-010-25W1/0

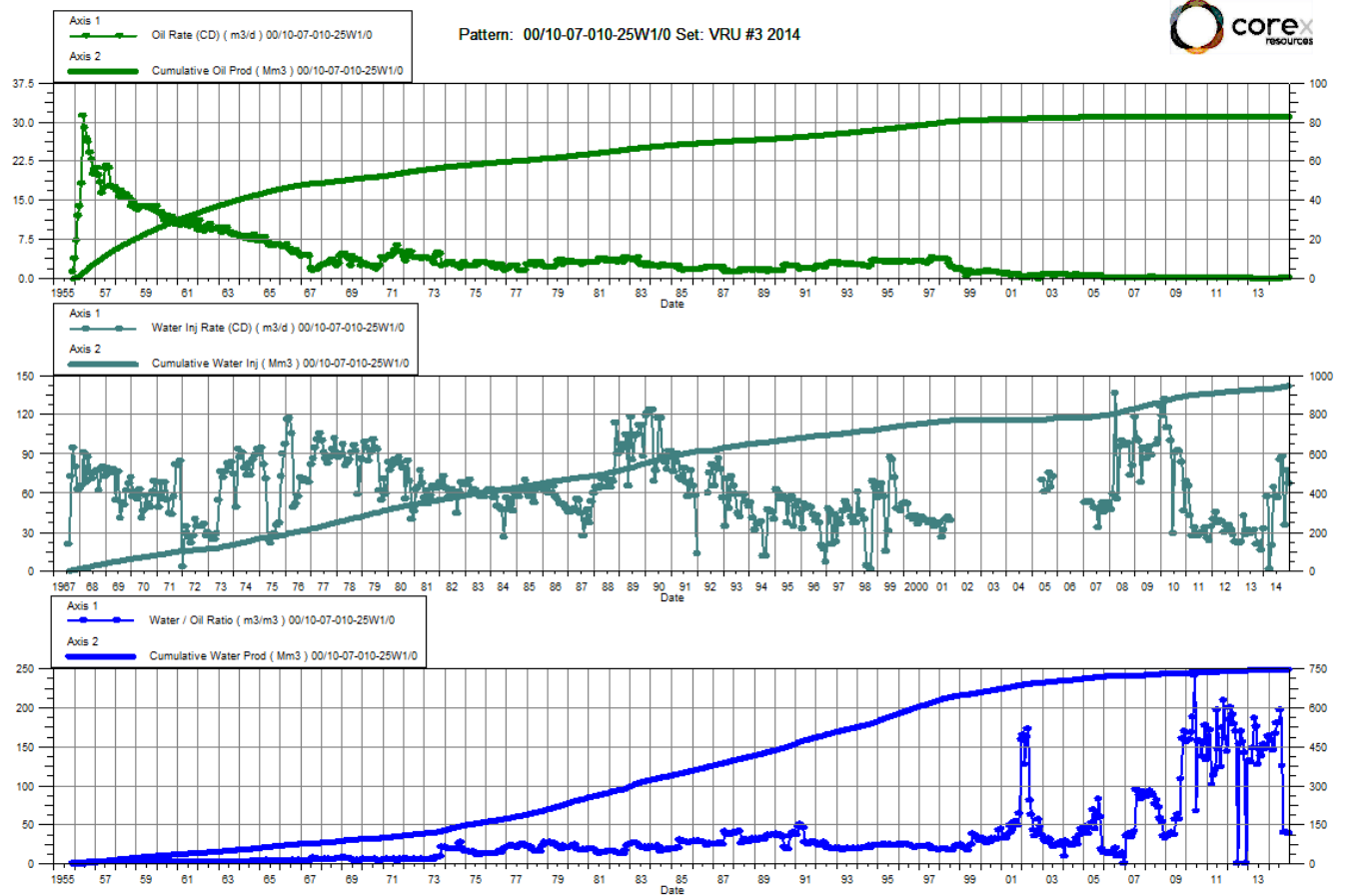
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.6	40.99	18.5	215.65		622.5	32.90		2.42	--
2/28/2014	0.5	41.00	16.5	216.11	37.50	623.6	32.97	2.20	2.42	139
3/31/2014	0.5	41.02	14.6	216.56	33.81	624.6	31.74	2.25	2.42	3,897
4/30/2014	0.2	41.02	7.6	216.79	13.32	625.0	49.10	1.71	2.42	3,773
5/31/2014	0.1	41.03	5.4	216.96	16.48	625.6	74.70	3.00	2.42	3,000
6/30/2014	0.2	41.03	10.5	217.28	16.89	626.1	44.12	1.57	2.42	2,990
7/31/2014	0.4	41.04	15.9	217.77	23.22	626.8	44.78	1.43	2.41	2,697
8/31/2014	0.4	41.06	17.8	218.32	56.29	628.5	42.06	3.09	2.42	2,629
9/30/2014	0.4	41.07	18.7	218.88	61.54	630.4	45.29	3.23	2.42	3,507
10/31/2014	0.3	41.08	15.5	219.36	73.34	632.6	46.38	4.64	2.42	3,706
11/30/2014	0.3	41.09	15.9	219.83	51.61	634.2	46.26	3.19	2.42	3,863
12/31/2014	0.4	41.10	17.1	220.36	56.69	635.9	47.72	3.25	2.43	2,819



VRU #3

Pattern P-18 – 00/10-07-010-25W1/0

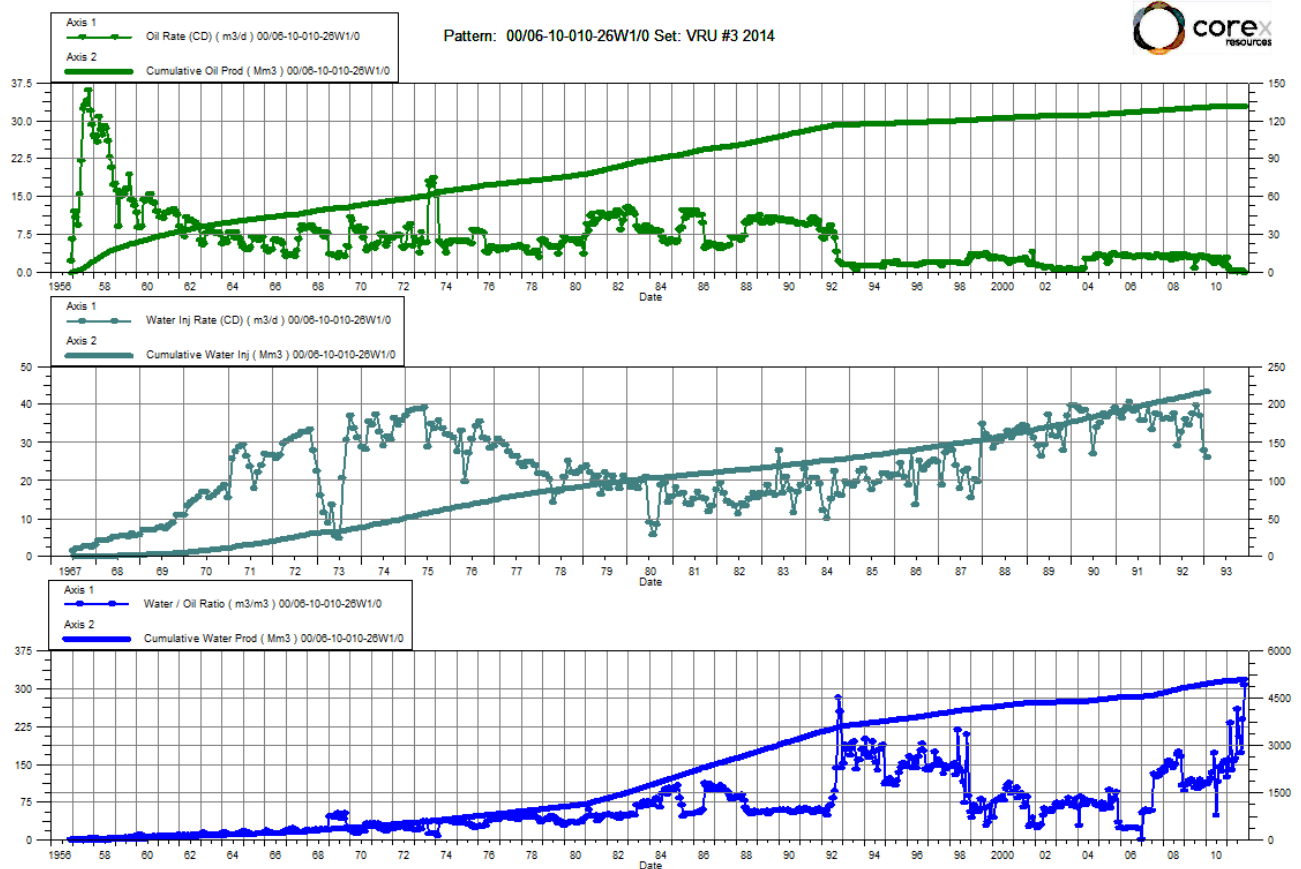
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.0	83.09	6.4	746.93		931.0	158.55		1.12	--
2/28/2014	0.0	83.09	6.3	747.11	57.32	932.6	156.99	9.01	1.12	136
3/31/2014	0.0	83.09	6.0	747.29	1.54	932.7	145.27	0.26	1.12	3,797
4/30/2014	0.0	83.09	6.1	747.48	19.36	933.3	167.12	3.16	1.12	3,643
5/31/2014	0.0	83.09	6.1	747.67	64.03	935.2	180.66	10.47	1.12	2,019
6/30/2014	0.0	83.09	6.5	747.86	57.03	937.0	180.38	8.76	1.13	2,597
7/31/2014	0.0	83.09	7.2	748.08	56.25	938.7	197.29	7.80	1.13	2,510
8/31/2014	0.1	83.09	7.0	748.30	85.74	941.4	125.40	12.19	1.13	2,835
9/30/2014	0.2	83.10	5.9	748.47	88.29	944.0	39.32	14.70	1.13	3,900
10/31/2014	0.1	83.10	4.9	748.62	34.95	945.1	40.08	7.03	1.13	3,894
11/30/2014	0.1	83.11	5.6	748.79	77.31	947.4	39.33	13.47	1.14	3,683
12/31/2014	0.1	83.11	4.3	748.92	66.98	949.5	38.64	15.36	1.14	3,213



VRU #3

Pattern P-19 – 00/06-10-010-26W1/0

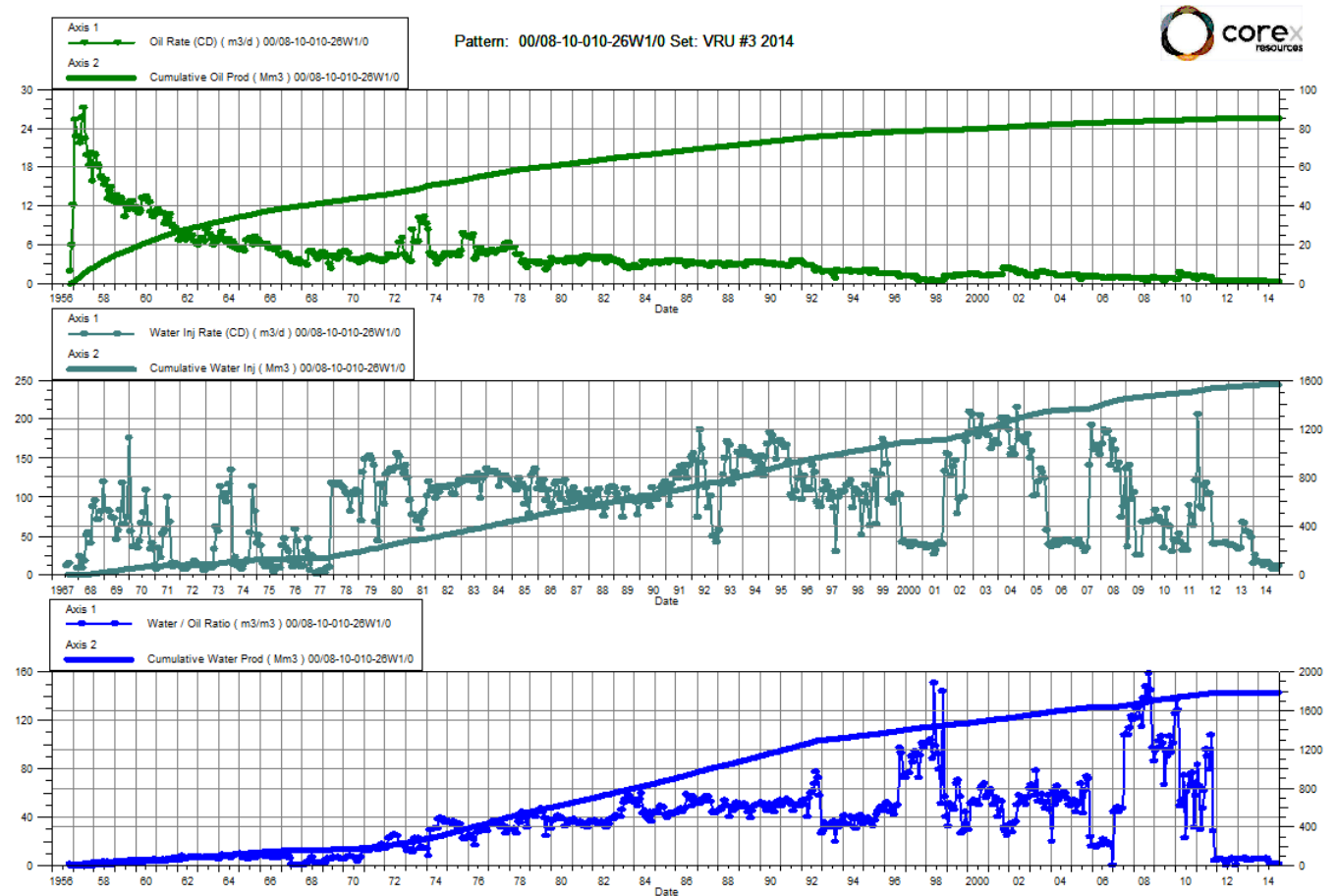
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.0	0.00	0.0	0.00		0.0	0.00	#DIV/0!	0.04	--
2/28/2014	0.0	0.00	0.0	0.00		0.0	0.00	#DIV/0!	0.04	--
3/31/2014	0.0	0.00	0.0	0.00		0.0	0.00	#DIV/0!	0.04	--
4/30/2014	0.0	0.00	0.0	0.00		0.0	0.00	#DIV/0!	0.04	--
5/31/2014	0.0	0.00	0.0	0.00		0.0	0.00	#DIV/0!	0.04	--
6/30/2014	0.0	0.00	0.0	0.00		0.0	0.00	#DIV/0!	0.04	--
7/31/2014	0.0	0.00	0.0	0.00		0.0	0.00	#DIV/0!	0.04	--
8/31/2014	0.0	0.00	0.0	0.00		0.0	0.00	#DIV/0!	0.04	--
9/30/2014	0.0	0.00	0.0	0.00		0.0	0.00	#DIV/0!	0.04	--
10/31/2014	0.0	0.00	0.0	0.00		0.0	0.00	#DIV/0!	0.04	--
11/30/2014	0.0	0.00	0.0	0.00		0.0	0.00	#DIV/0!	0.04	--
12/31/2014	0.0	0.00	0.0	0.00		0.0	0.00	#DIV/0!	0.04	--



VRU #3

Pattern P-20 – 00/08-10-010-26W1/0

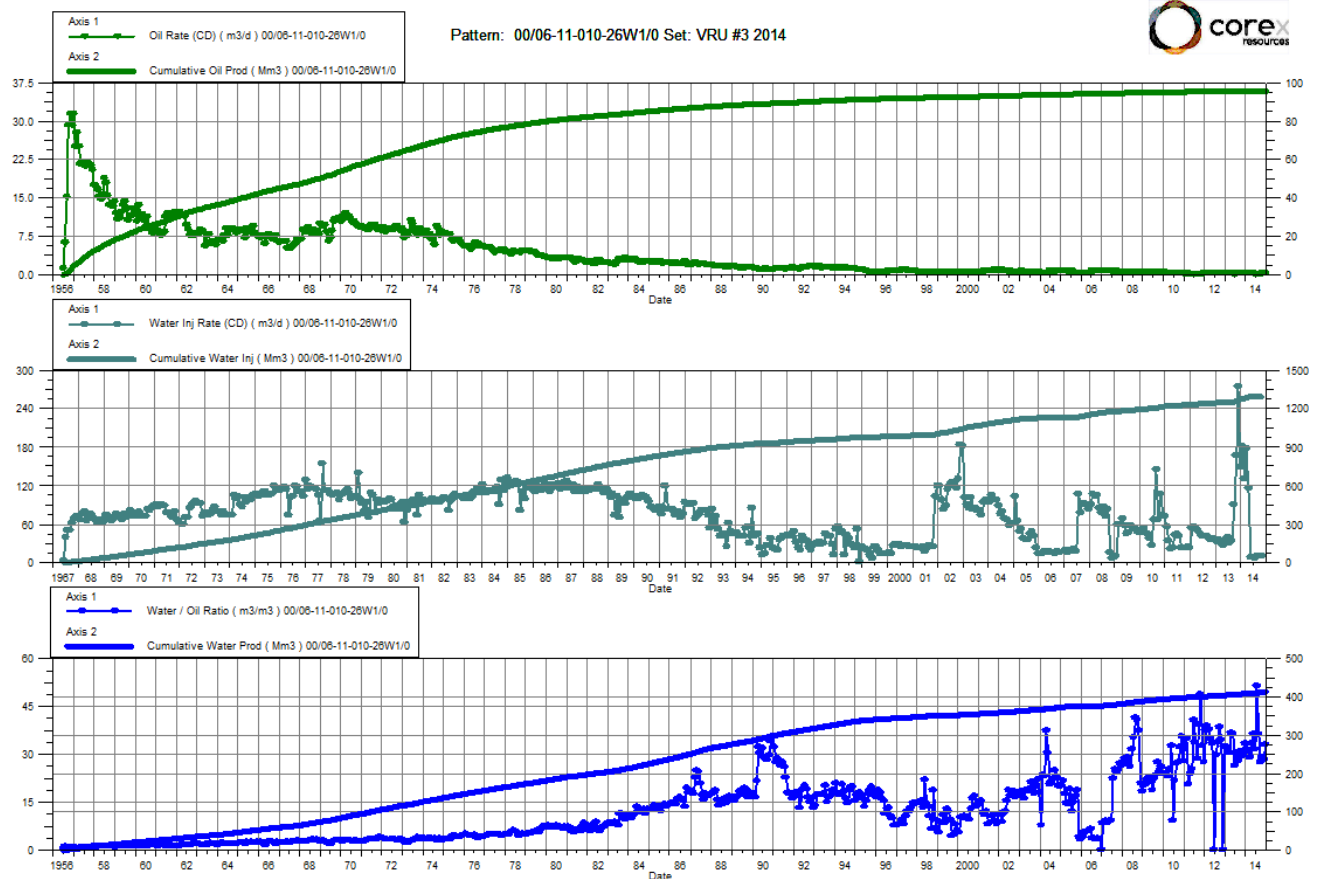
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.5	85.36	2.4	1784.32	24.53	1561.1	4.98	8.68	0.83	--
2/28/2014	0.5	85.37	2.3	1784.38	16.73	1561.6	4.87	6.04	0.83	--
3/31/2014	0.5	85.39	2.2	1784.45	15.58	1562.1	4.59	5.78	0.84	--
4/30/2014	0.4	85.40	2.3	1784.52	16.53	1562.6	5.30	6.16	0.84	--
5/31/2014	0.4	85.41	2.3	1784.59	11.01	1562.9	5.70	4.16	0.84	--
6/30/2014	0.4	85.42	1.4	1784.63	16.48	1563.4	3.65	9.07	0.84	--
7/31/2014	0.3	85.43	0.4	1784.64	16.31	1563.9	1.15	23.99	0.84	--
8/31/2014	0.3	85.44	0.4	1784.65	13.45	1564.3	1.10	19.59	0.84	581
9/30/2014	0.4	85.45	0.3	1784.66	6.30	1564.5	0.89	9.14	0.84	3,600
10/31/2014	0.3	85.46	0.3	1784.67	11.26	1564.9	0.92	20.02	0.84	3,600
11/30/2014	0.3	85.47	0.3	1784.68	6.99	1565.1	0.89	10.62	0.84	3,600
12/31/2014	0.3	85.48	0.3	1784.69	11.99	1565.5	0.95	17.99	0.84	3,600



VRU #3

Pattern P-21 – 00/06-11-010-26W1/0

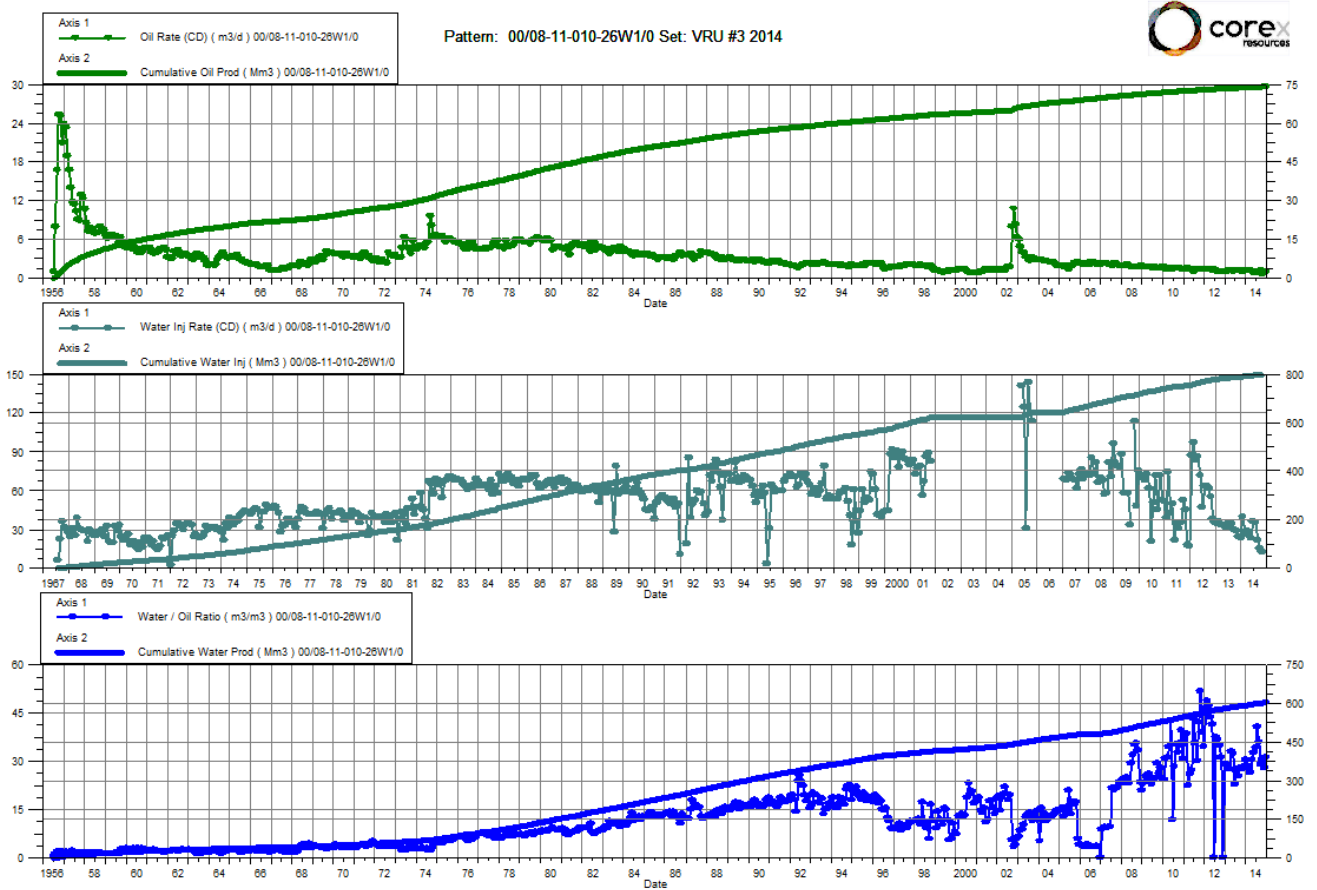
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.4	95.70	12.4	408.63	182.59	1279.4	31.49	14.27	2.53	--
2/28/2014	0.4	95.71	12.2	408.97	129.94	1283.0	30.76	10.29	2.53	--
3/31/2014	0.4	95.72	11.7	409.33	178.48	1288.5	29.10	14.79	2.54	--
4/30/2014	0.4	95.73	11.9	409.69	116.73	1292.0	33.35	9.53	2.55	--
5/31/2014	0.3	95.74	11.3	410.04	8.69	1292.3	36.37	0.75	2.55	--
6/30/2014	0.2	95.75	7.4	410.26	8.49	1292.6	31.54	1.11	2.55	--
7/31/2014	0.1	95.75	6.0	410.45	5.40	1292.7	51.42	0.88	2.55	--
8/31/2014	0.2	95.76	7.9	410.69	10.70	1293.1	36.33	1.32	2.54	548
9/30/2014	0.3	95.76	7.0	410.90	10.60	1293.4	27.54	1.46	2.54	3,400
10/31/2014	0.3	95.77	9.8	411.21	10.75	1293.7	28.95	1.06	2.54	3,400
11/30/2014	0.4	95.79	12.5	411.58		1293.7	28.39		2.54	3,400
12/31/2014	0.4	95.80	11.8	411.95		1293.7	32.91		2.54	3,400



VRU #3

Pattern P-22 – 00/08-11-010-26W1/0

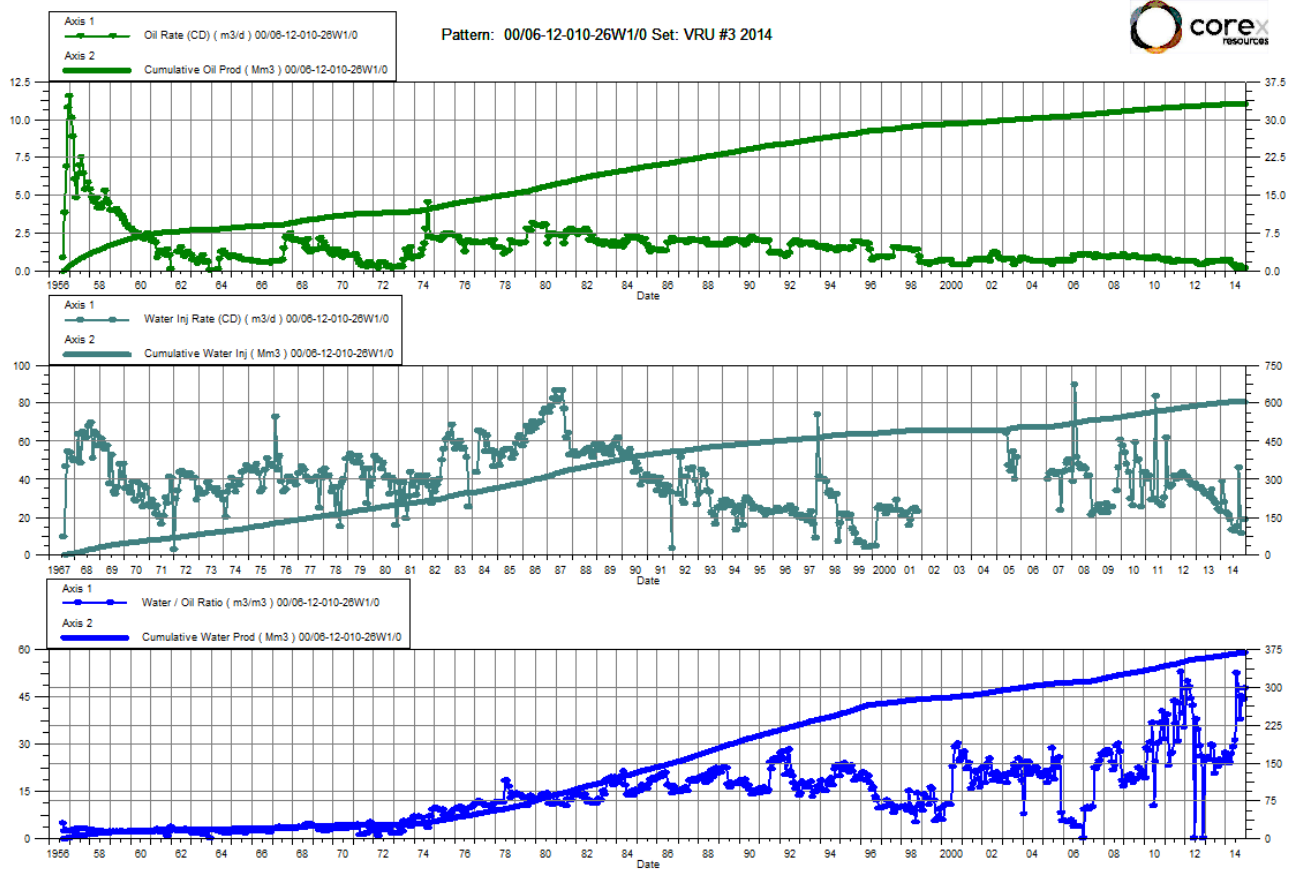
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	1.3	74.00	36.1	593.25	39.35	791.7	28.46	1.05	1.18	--
2/28/2014	1.3	74.03	35.9	594.26	28.20	792.5	27.92	0.76	1.18	--
3/31/2014	1.3	74.07	34.0	595.31	28.58	793.4	26.32	0.81	1.18	--
4/30/2014	1.0	74.10	31.5	596.25	24.69	794.1	30.41	0.76	1.18	--
5/31/2014	0.9	74.13	30.2	597.19	23.14	794.8	32.81	0.74	1.18	--
6/30/2014	1.0	74.16	33.0	598.18	35.69	795.9	34.11	1.05	1.18	--
7/31/2014	0.8	74.18	32.1	599.18	34.73	797.0	40.60	1.06	1.18	--
8/31/2014	1.0	74.22	36.3	600.30	21.50	797.6	35.86	0.58	1.18	548
9/30/2014	1.2	74.25	34.5	601.33	14.90	798.1	28.89	0.42	1.18	3,400
10/31/2014	0.8	74.27	22.9	602.04	12.69	798.5	30.53	0.54	1.18	3,400
11/30/2014	0.9	74.30	25.7	602.81		798.5	28.04		1.18	3,400
12/31/2014	1.0	74.33	30.5	603.76		798.5	31.19		1.18	3,400



VRU #3

Pattern P-23 – 00/06-12-010-26W1/0

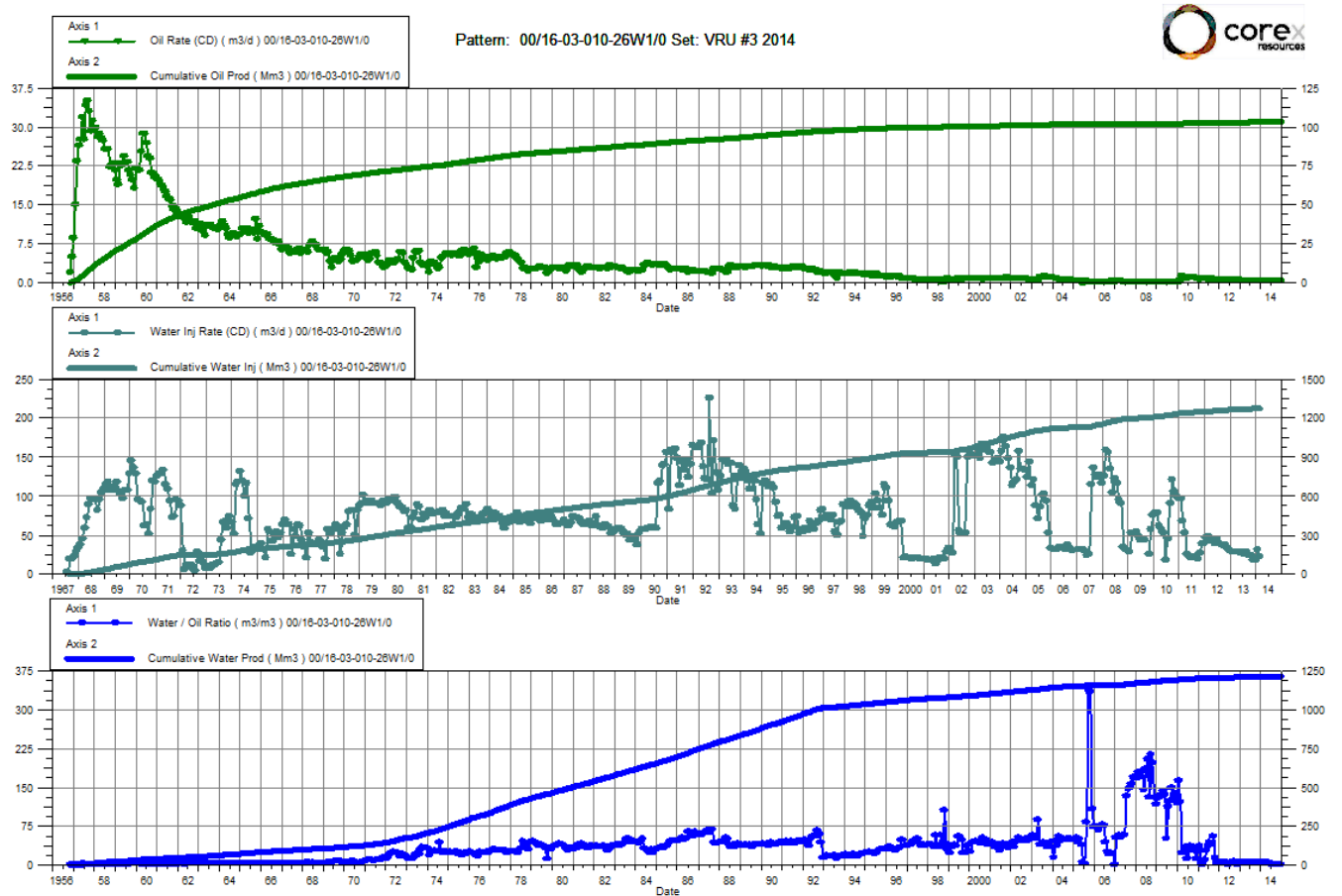
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.7	33.08	18.0	364.70	39.00	602.3	25.70	2.08	1.51	--
2/28/2014	0.7	33.10	17.9	365.20	27.53	603.1	25.26	1.48	1.51	--
3/31/2014	0.7	33.12	16.9	365.72	22.08	603.8	23.76	1.25	1.51	--
4/30/2014	0.5	33.14	14.1	366.14	20.81	604.4	26.89	1.43	1.51	--
5/31/2014	0.5	33.15	13.2	366.55	18.78	605.0	28.95	1.38	1.51	--
6/30/2014	0.4	33.16	13.7	366.96	13.25	605.4	31.32	0.94	1.51	--
7/31/2014	0.2	33.17	11.9	367.33	12.51	605.7	52.60	1.03	1.51	--
8/31/2014	0.3	33.18	15.2	367.80	14.87	606.2	47.73	0.96	1.51	613
9/30/2014	0.4	33.19	14.7	368.24	45.90	607.6	37.87	3.05	1.51	3,800
10/31/2014	0.2	33.20	8.7	368.51	11.36	607.9	44.97	1.27	1.51	3,800
11/30/2014	0.2	33.20	7.1	368.72		607.9	43.90		1.51	3,800
12/31/2014	0.2	33.21	10.5	369.05	18.58	608.5	47.59	1.74	1.51	3,800



VRU #3

Pattern P-24 – 00/16-03-010-26W1/0

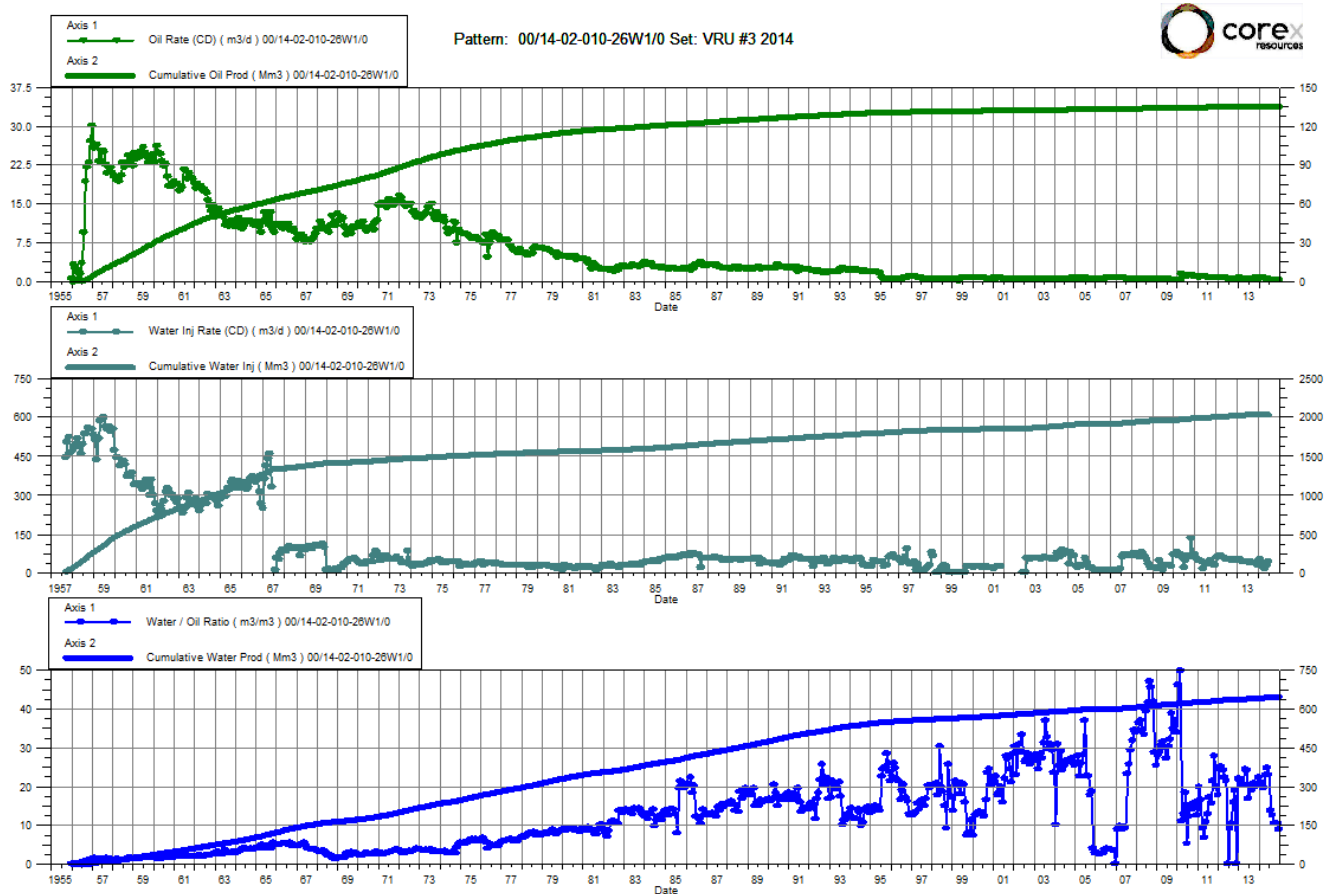
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.5	103.28	2.4	1211.36	31.79	1274.1	4.98	11.25	0.97	--
2/28/2014	0.5	103.29	2.3	1211.42	21.56	1274.7	4.87	7.79	0.97	--
3/31/2014	0.5	103.31	2.2	1211.49		1274.7	4.59		0.97	--
4/30/2014	0.4	103.32	2.3	1211.56		1274.7	5.30		0.97	--
5/31/2014	0.4	103.33	2.3	1211.63		1274.7	5.70		0.97	--
6/30/2014	0.4	103.34	1.4	1211.67		1274.7	3.65		0.97	--
7/31/2014	0.3	103.35	0.4	1211.68		1274.7	1.15		0.97	--
8/31/2014	0.3	103.36	0.4	1211.69		1274.7	1.10		0.97	--
9/30/2014	0.4	103.37	0.3	1211.70		1274.7	0.89		0.97	--
10/31/2014	0.3	103.38	0.3	1211.71		1274.7	0.92		0.97	--
11/30/2014	0.3	103.39	0.3	1211.72		1274.7	0.89		0.97	--
12/31/2014	0.3	103.40	0.3	1211.73		1274.7	0.95		0.97	--



VRU #3

Pattern P-25 – 00/14-02-010-26W1/0

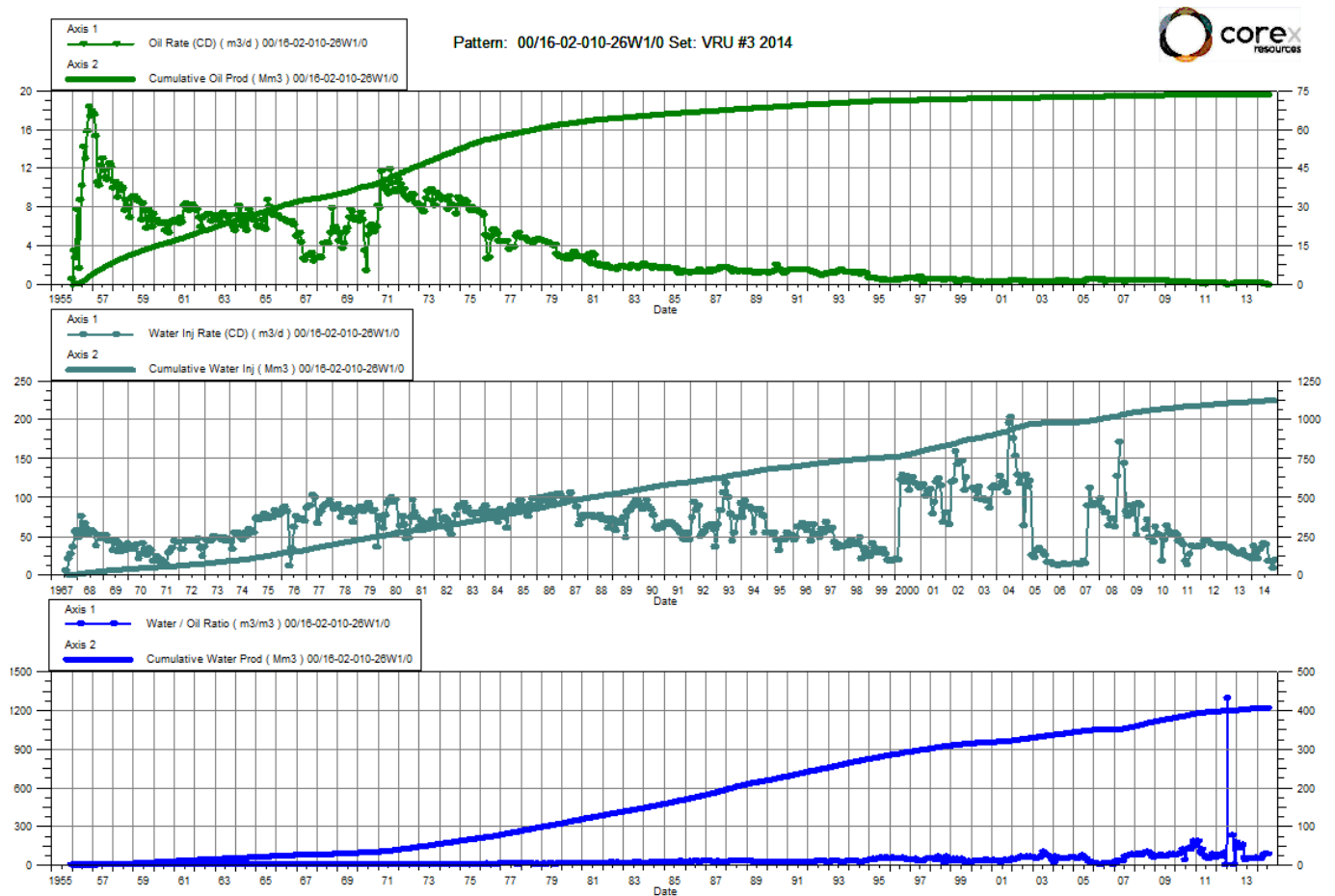
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.7	135.52	15.8	642.67	54.13	2038.4	21.23	3.27	2.61	--
2/28/2014	0.8	135.54	15.4	643.10	37.87	2039.5	20.64	2.34	2.61	--
3/31/2014	0.8	135.57	14.9	643.56	35.08	2040.6	19.59	2.24	2.61	--
4/30/2014	0.6	135.58	13.9	643.98	16.72	2041.1	22.87	1.15	2.61	--
5/31/2014	0.6	135.60	13.9	644.41	29.28	2042.0	24.70	2.03	2.61	--
6/30/2014	0.6	135.62	12.8	644.80	43.48	2043.3	23.07	3.25	2.61	--
7/31/2014	0.4	135.63	5.4	644.96		2043.3	13.72		2.61	--
8/31/2014	0.4	135.64	5.1	645.12		2043.3	12.59		2.61	--
9/30/2014	0.5	135.66	4.6	645.26		2043.3	10.26		2.61	--
10/31/2014	0.4	135.67	3.8	645.38		2043.3	10.53		2.61	--
11/30/2014	0.4	135.68	4.4	645.51		2043.3	10.30		2.61	--
12/31/2014	0.4	135.69	3.6	645.62		2043.3	8.88		2.61	--



VRU #3

Pattern P-26 – 00/16-02-010-26W1/0

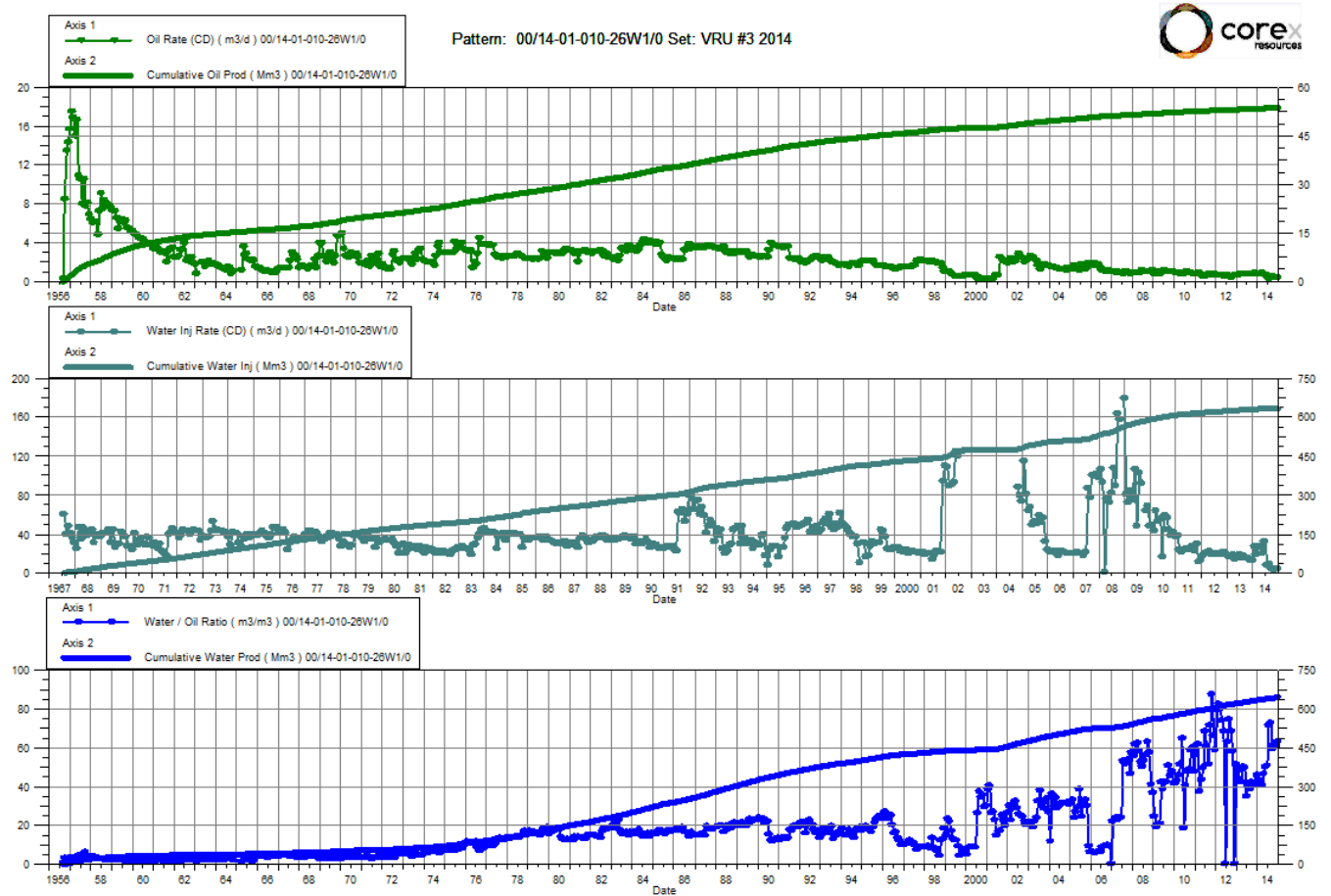
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.2	73.69	8.3	405.84	37.78	1116.6	50.08	4.45	2.32	--
2/28/2014	0.2	73.69	8.0	406.07	26.64	1117.3	47.80	3.25	2.32	--
3/31/2014	0.2	73.70	7.8	406.31	21.21	1118.0	46.21	2.65	2.32	--
4/30/2014	0.1	73.70	6.8	406.52	32.03	1118.9	76.64	4.67	2.32	--
5/31/2014	0.1	73.70	6.7	406.72	36.22	1120.1	84.98	5.33	2.33	--
6/30/2014	0.1	73.70	6.8	406.93	39.64	1121.3	83.14	5.77	2.33	--
7/31/2014	0.0	73.70	0.3	406.93	39.03	1122.5	79.00	151.21	2.33	--
8/31/2014		73.70		406.93	17.47	1123.0			2.33	774
9/30/2014		73.70		406.93	17.99	1123.5			2.33	4,800
10/31/2014		73.70		406.93	8.39	1123.8			2.33	4,800
11/30/2014		73.70		406.93	18.28	1124.4			2.33	4,800
12/31/2014		73.70		406.93		1124.4			2.33	4,800



VRU #3

Pattern P-27 – 00/14-01-010-26W1/0

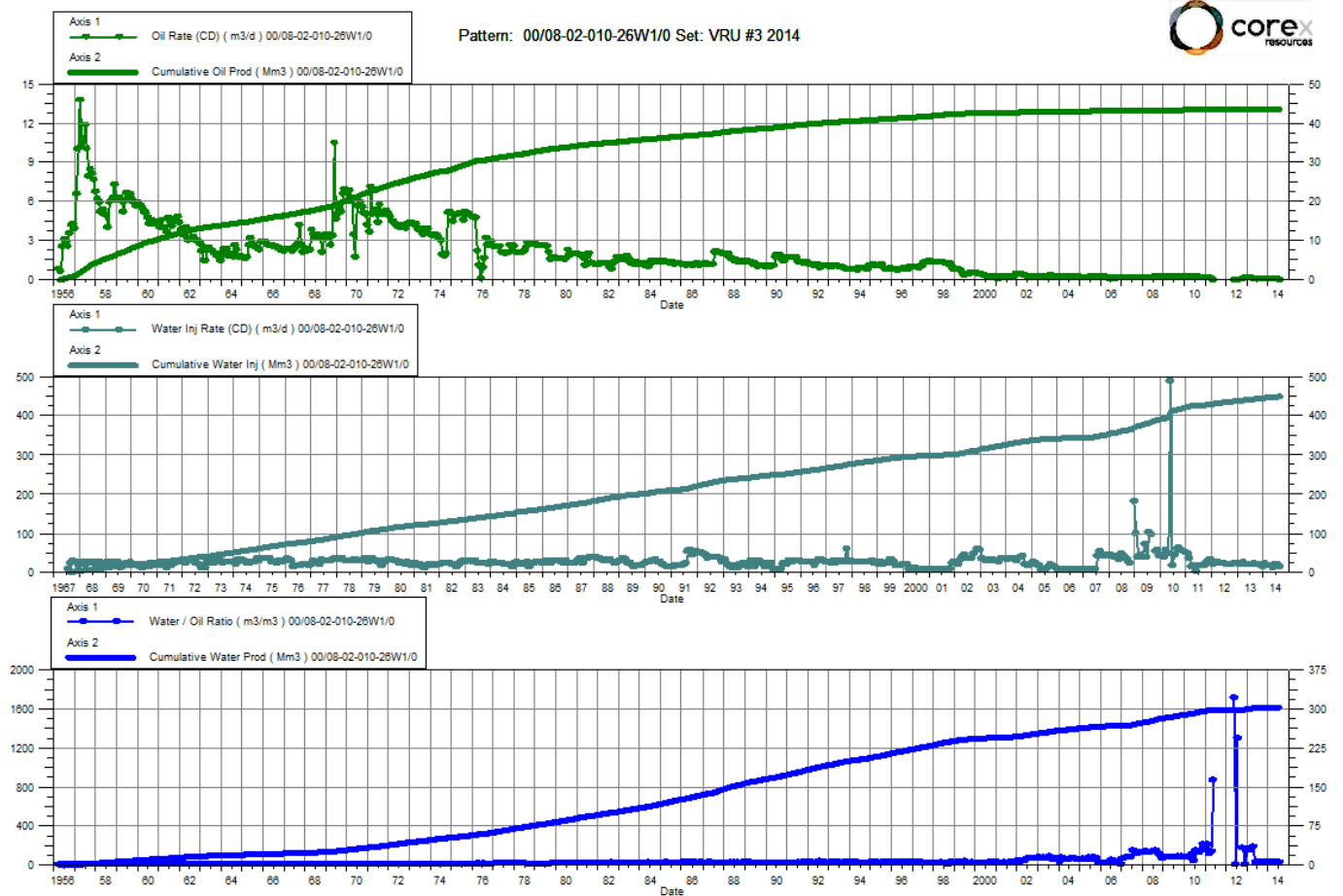
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.9	53.47	37.6	634.82	27.37	630.8	43.42	0.71	0.92	--
2/28/2014	0.9	53.49	37.4	635.87	18.72	631.3	42.68	0.49	0.91	--
3/31/2014	0.9	53.52	35.4	636.96	27.07	632.1	40.17	0.75	0.91	--
4/30/2014	0.8	53.54	36.0	638.04	26.11	632.9	46.32	0.71	0.91	--
5/31/2014	0.7	53.57	35.8	639.15	20.37	633.5	49.99	0.56	0.91	--
6/30/2014	0.7	53.59	36.4	640.24	32.46	634.5	51.00	0.88	0.91	--
7/31/2014	0.3	53.60	22.7	640.95	7.55	634.7	71.43	0.33	0.91	--
8/31/2014	0.5	53.61	32.3	641.95	9.17	635.0	72.50	0.28	0.91	645
9/30/2014	0.5	53.63	30.6	642.87	4.30	635.2	59.26	0.14	0.91	4,000
10/31/2014	0.4	53.64	25.3	643.65	3.27	635.3	60.93	0.13	0.91	4,000
11/30/2014	0.4	53.65	25.4	644.41	3.92	635.4	60.56	0.15	0.91	4,000
12/31/2014	0.5	53.67	30.6	645.36	4.75	635.5	63.19	0.15	0.91	4,000



VRU #3

Pattern P-28 – 00/08-02-010-26W1/0

Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	0.1	43.54	2.5	302.40	22.65	445.7	24.24	8.77	1.29	--
2/28/2014	0.1	43.54	2.5	302.47	16.30	446.1	23.73	6.35	1.29	--
3/31/2014	0.1	43.55	2.3	302.54	17.33	446.7	22.33	7.12	1.29	--
4/30/2014	0.1	43.55	2.4	302.61	16.33	447.1	26.00	6.62	1.29	--
5/31/2014	0.1	43.55	2.4	302.69	11.46	447.5	28.04	4.69	1.29	--
6/30/2014	0.1	43.55	2.5	302.76	18.20	448.0	26.98	6.95	1.29	--
7/31/2014	0.0	43.55	0.1	302.76	18.02	448.6	28.33	192.20	1.29	--
8/31/2014		43.55		302.76	12.23	449.0			1.29	548
9/30/2014		43.55		302.76		449.0			1.29	3,400
10/31/2014		43.55		302.76		449.0			1.29	3,400
11/30/2014		43.55		302.76		449.0			1.29	3,400
12/31/2014		43.55		302.76		449.0			1.29	3,400



VRU #3

Pattern P-29 – 00/06-01-010-26W1/0

Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2014	1.3	127.95	57.6	1534.88	54.13	733.1	44.99	0.92	0.44	--
2/28/2014	1.4	127.99	59.3	1536.54	38.08	734.1	43.89	0.63	0.44	--
3/31/2014	1.8	128.04	72.1	1538.78	69.52	736.3	40.99	0.94	0.44	--
4/30/2014	1.6	128.09	73.5	1540.98	54.68	737.9	47.28	0.73	0.44	--
5/31/2014	1.3	128.13	68.1	1543.09	15.56	738.4	52.22	0.22	0.44	--
6/30/2014	1.4	128.17	70.2	1545.20	23.26	739.1	49.35	0.33	0.44	--
7/31/2014	1.4	128.21	61.7	1547.11	23.07	739.8	44.78	0.37	0.44	--
8/31/2014	1.7	128.27	75.2	1549.44	34.18	740.9	44.09	0.44	0.44	677
9/30/2014	1.9	128.33	69.4	1551.52	46.01	742.3	36.00	0.65	0.44	4,200
10/31/2014	1.5	128.37	57.2	1553.30	28.30	743.2	37.55	0.48	0.44	4,200
11/30/2014	2.1	128.44	74.2	1555.52	61.53	745.0	35.53	0.81	0.44	4,200
12/31/2014	2.1	128.50	81.1	1558.04	31.77	746.0	38.04	0.38	0.44	4,200

