

PROVEN

EFFECTIVE

STRATEGY



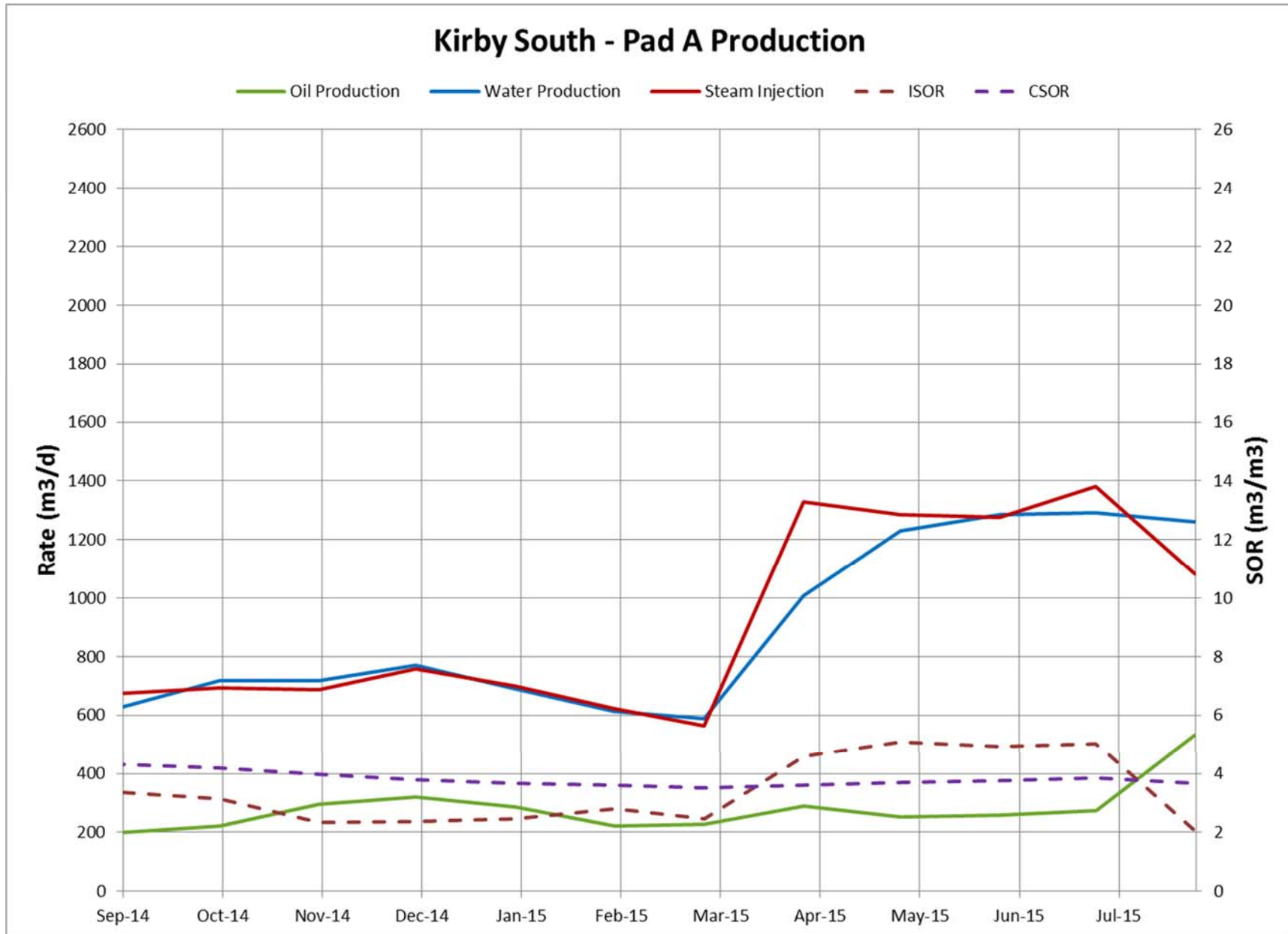
**Canadian Natural**

# D54 APPENDIX OBSERVATION WELL

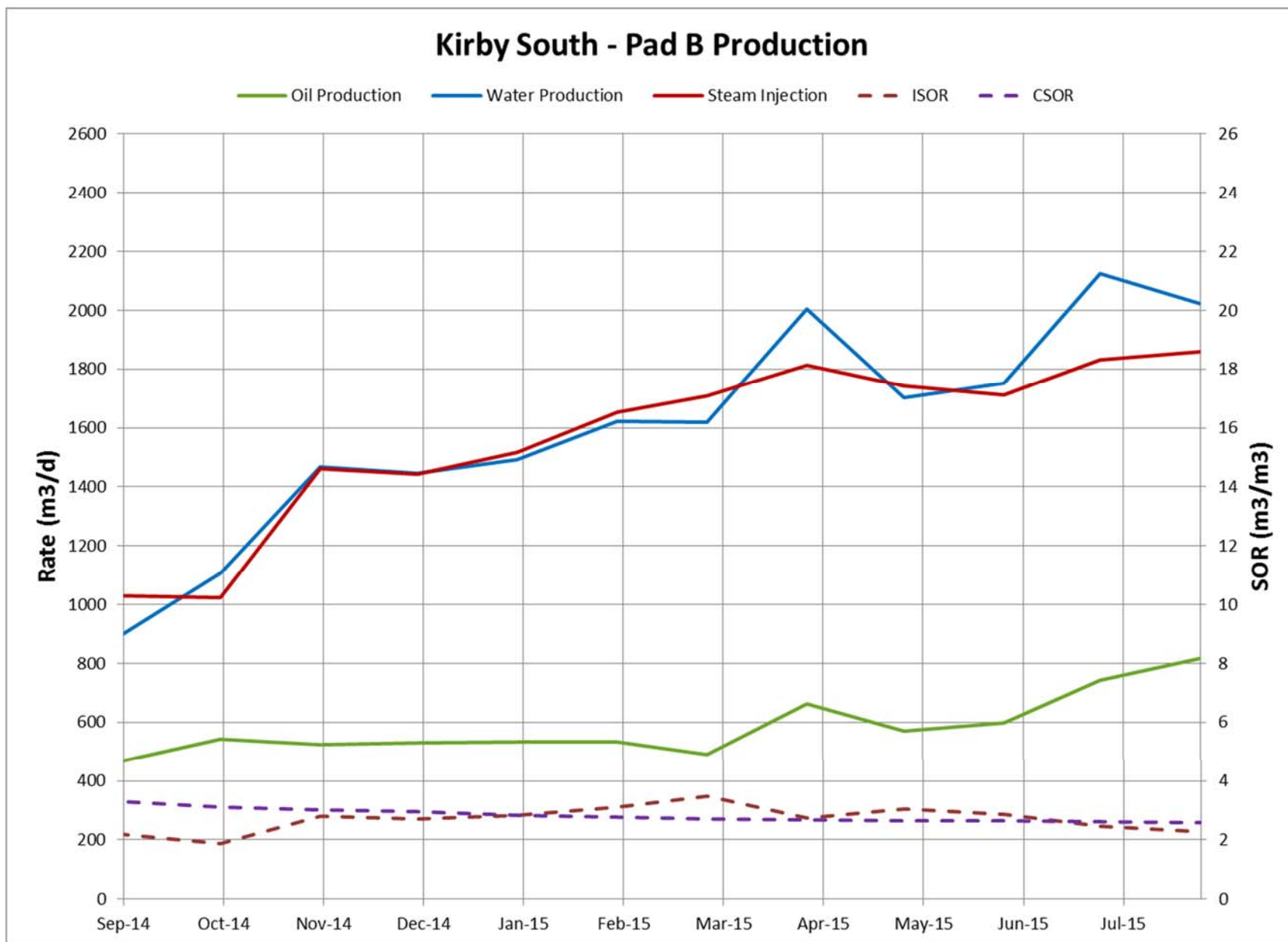
October 2015

PREMIUM VALUE. DEFINED GROWTH. INDEPENDENT.

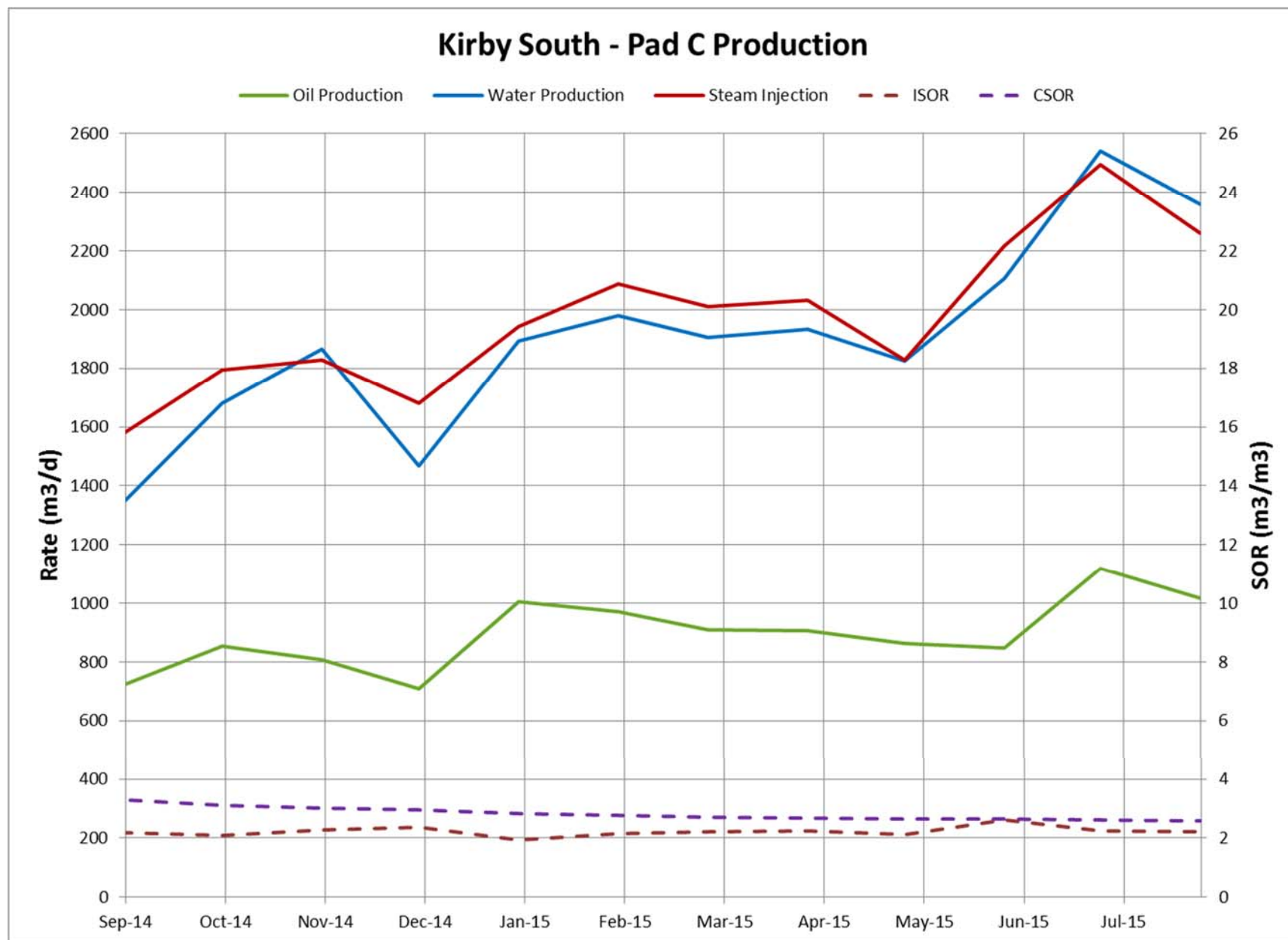
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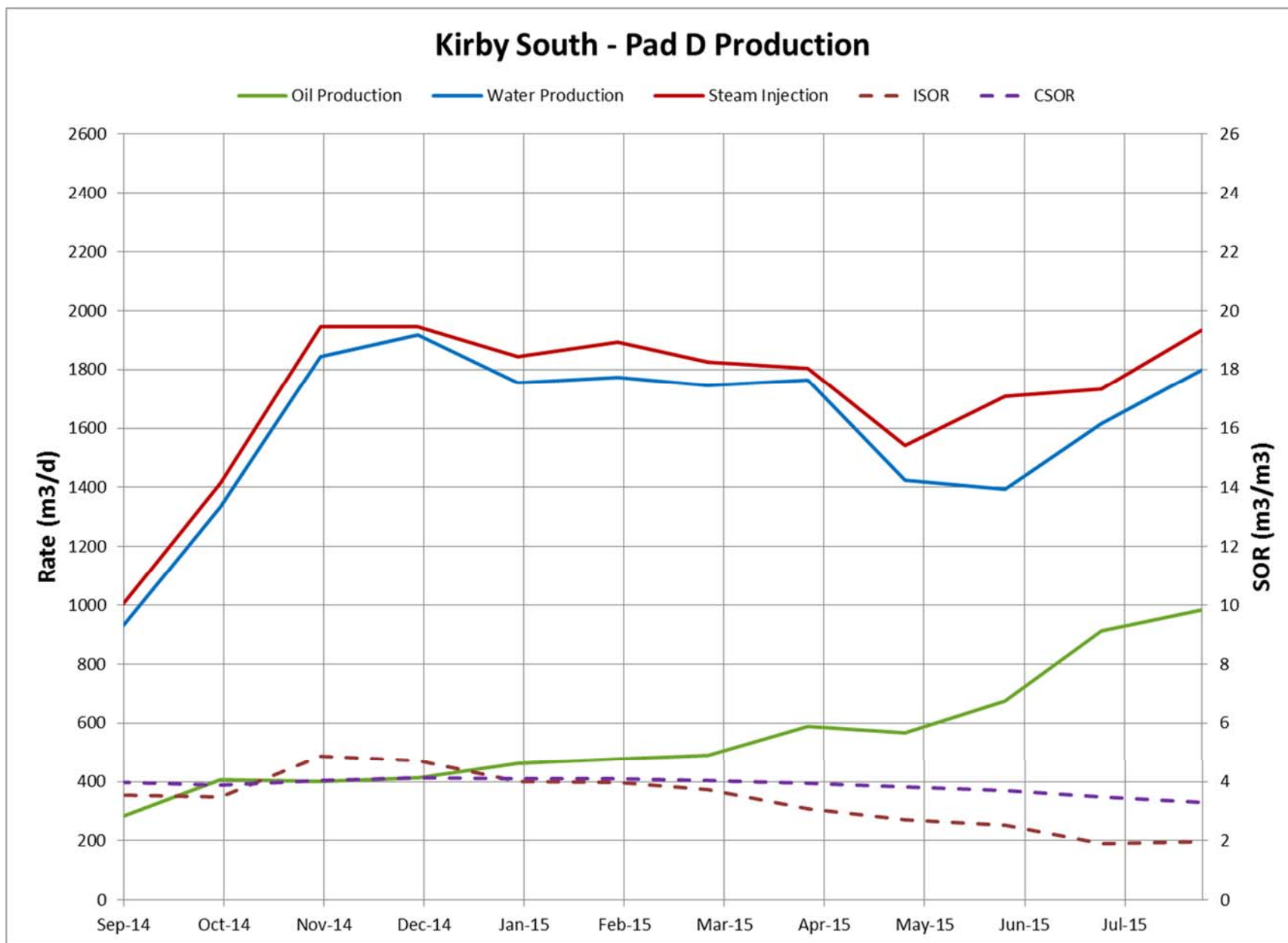
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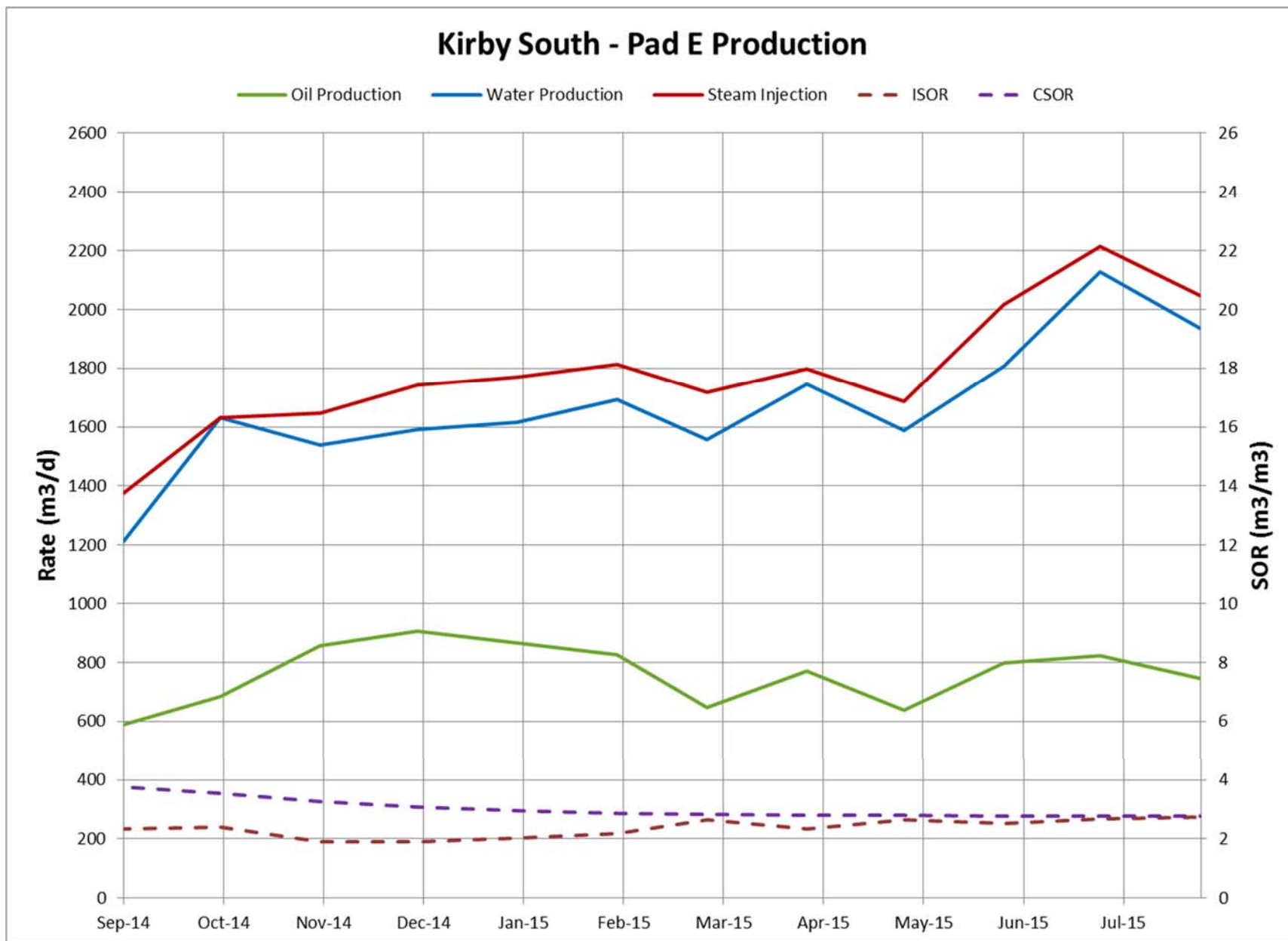
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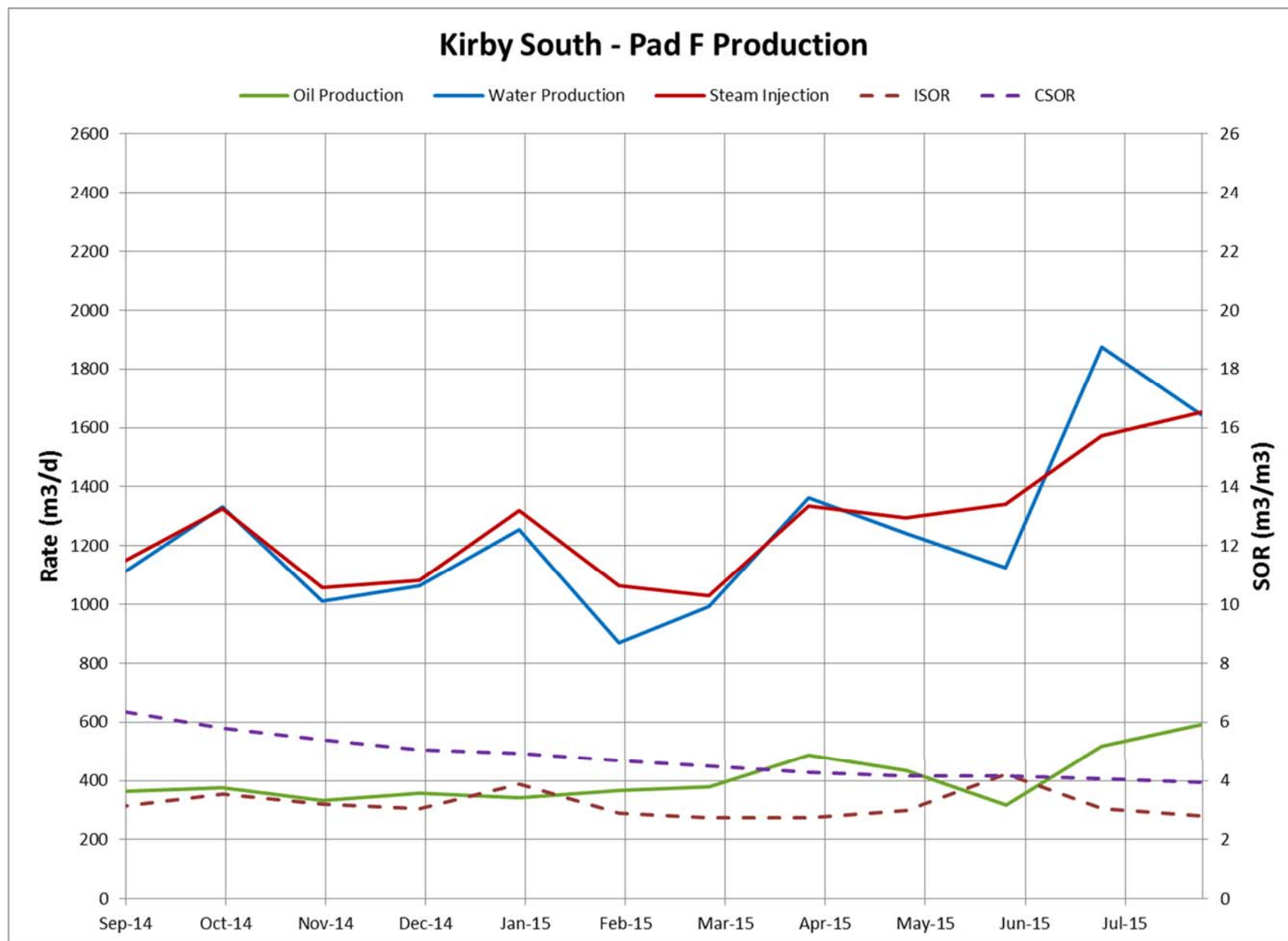
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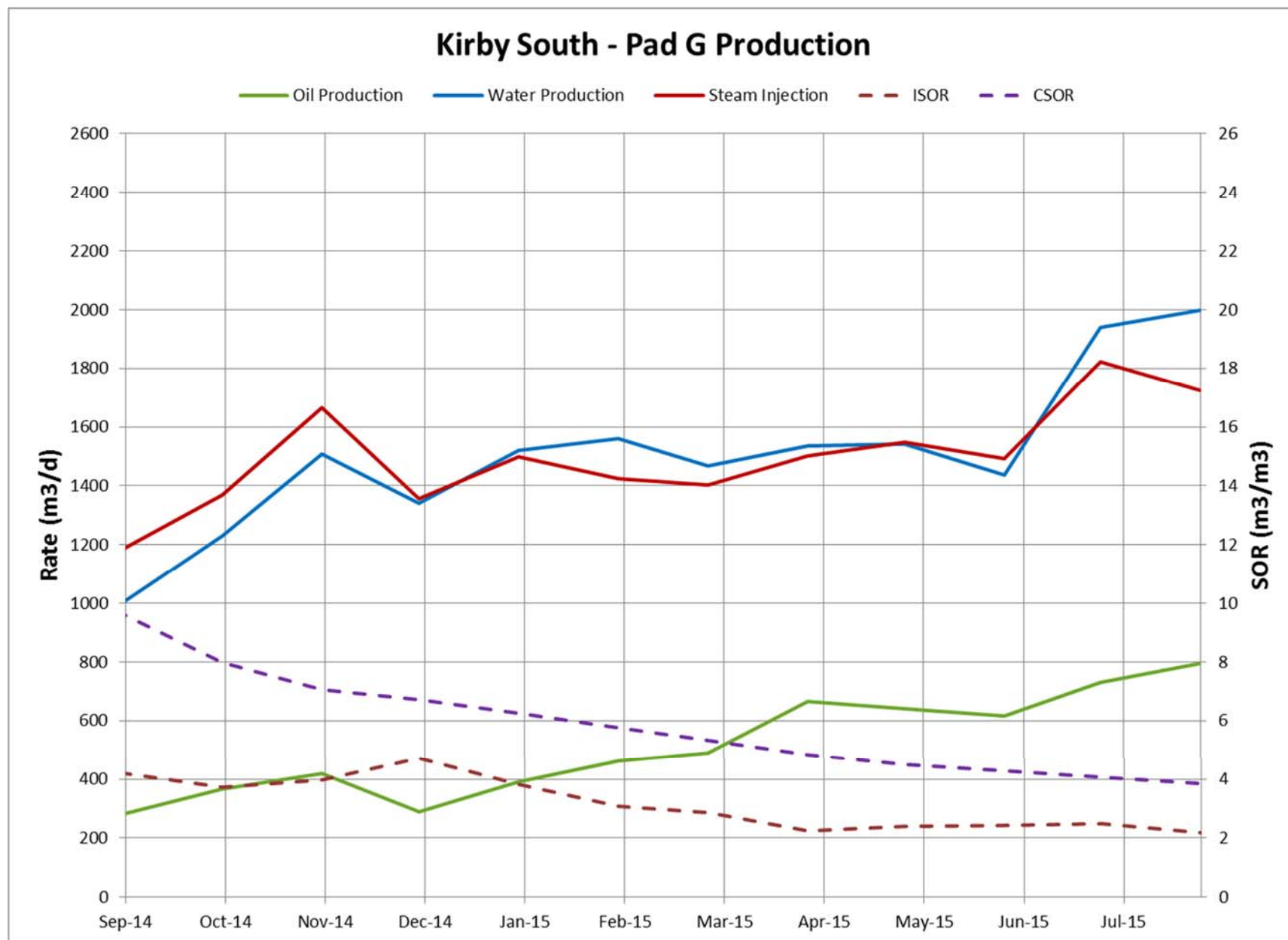
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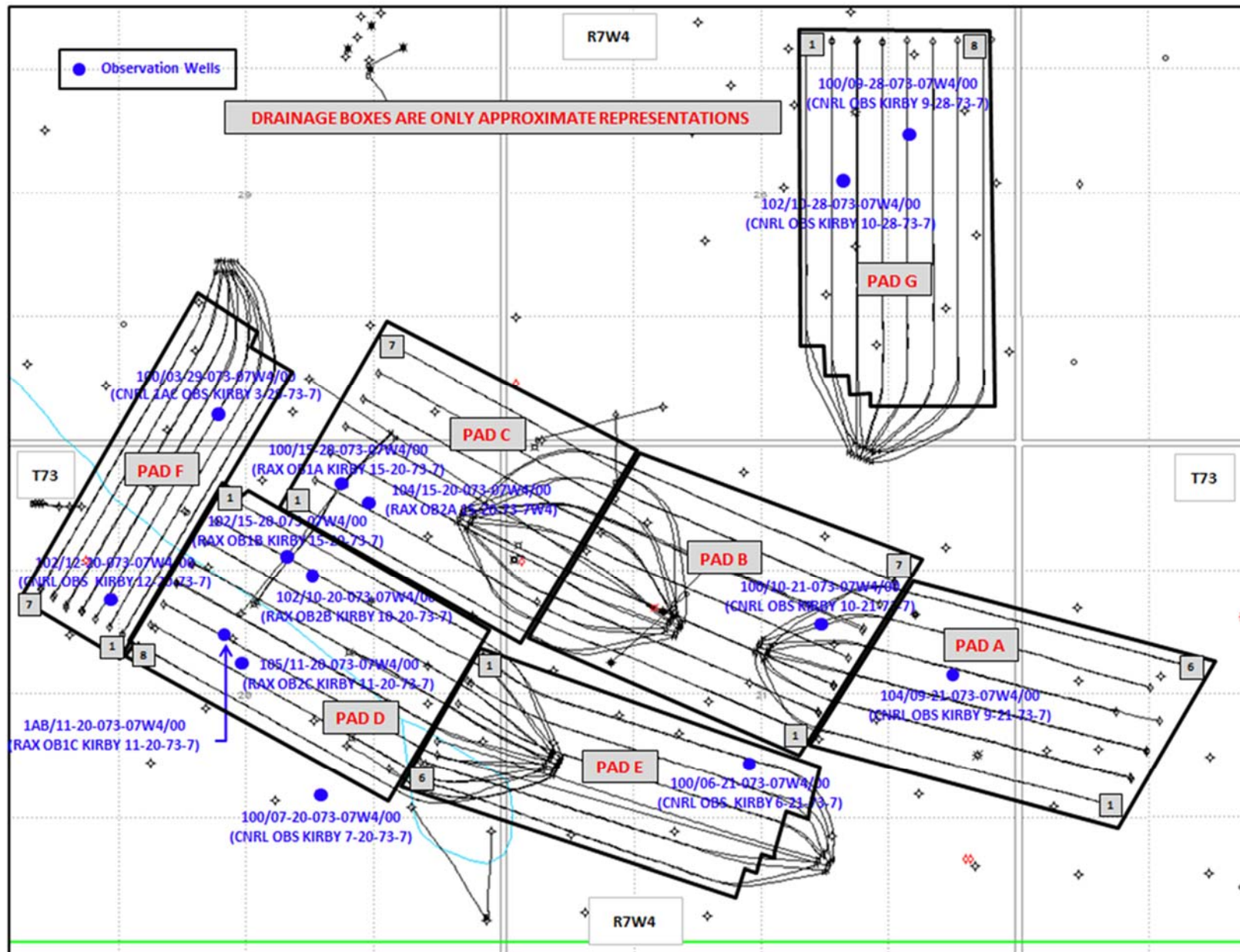


# G Pad Production





# Pad Observation Wells – Locations



# • 100/03-29-073-07W4/00 (CNRL 1AC OBS KIRBY 3-29-73-7)

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD producer well where obs well projects on (mKB MD)	Location on SAGD injector well where obs well projects on (mKB MD)
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	PZ pressure @551.73m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	PZ pressure @540.83m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	PZ pressure @477.76m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	PZ Temperature @551.73m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	PZ Temperature @540.83m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	PZ Temperature @477.76m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 551.5m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 548m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 544.5m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 541m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 537.5m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 534m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 530.5m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 527m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 523.5m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 520m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 516.5m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 513m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 506m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 499m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 429m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 485m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 478m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 471m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 464m	F3	5	895	865
100/03-29-073-07W4/00	CNRL 1AC OBS KIRBY 3-29-73-7	TC @ 457m	F3	5	895	865



- **100/07-20-073-07W4/00 (CNRL OBS KIRBY 7-20-73-7)**

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD producer well where obs well projects on (mKB MD)	Location on SAGD injector well where obs well projects on (mKB MD)
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	PZ pressure @551.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	PZ pressure @542.86m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	PZ pressure @481.45m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	PZ Temperature @551.51m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	PZ Temperature @542.86m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	PZ Temperature @481.45m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 555m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 551.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 548m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @544.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 541m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 537.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 534m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 530.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 527m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 523.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 520m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 516.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 509.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 502.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 495.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 488.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 481.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @474.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 467.5m	D8	122	1150	1120
100/07-20-073-07W4/00	CNRL OBS KIRBY 7-20-73-7	TC @ 460.5m	D8	122	1150	1120

# • 100/09-28-073-07W4/00 (CNRL OBS KIRBY 9-28-73-7)

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD producer well where obs well projects on (mKB MD)	Location on SAGD injector well where obs well projects on (mKB MD)
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	PZ pressure @543m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	PZ pressure @473m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	PZ Temperature @543m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	PZ Temperature @473m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 550.2m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 546.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 543.2m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 539.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 536.2m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 532.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 529.2m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 525.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 522.2m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 518.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 515.2m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 511.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 504.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 497.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 490.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 483.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 476.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @469.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 462.7m	G5	7	1515	1480
100/09-28-073-07W4/00	CNRL OBS KIRBY 9-28-73-7	TC @ 455.7m	G5	7	1515	1480



# • 100/10-21-073-07W4/00 (CNRL OBS KIRBY 10-21-73-7)

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD producer well where obs well projects on (mKB MD)	Location on SAGD injector well where obs well projects on (mKB MD)
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	PZ pressure @561.02m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	PZ pressure @541.57m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	PZ pressure @478.74m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	PZ Temperature @561.02m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	PZ Temperature @541.57m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	PZ Temperature @478.74m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 561.1m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 557.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 554.1m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 550.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 547.1m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 543.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 540.1m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 536.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 533.1m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 529.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 526.1m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 522.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 515.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 508.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 501.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 494.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 487.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 480.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @473.6m	B5	32	1634	1596
100/10-21-073-07W4/00	CNRL OBS KIRBY 10-21-73-7	TC @ 466.6m	B5	32	1634	1596

- 100/15-20-073-07W4/00 (RAX OB1A KIRBY 15-20-73-7)

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD producer well where obs well projects on (mKB MD)	Location on SAGD injector well where obs well projects on (mKB MD)
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 555m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 551.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 548m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 544.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 541m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 537.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 534m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 530.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 527m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 523.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 520m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 516.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 509.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 502.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 495.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 488.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 481.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 474.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 467.5m	C2	36	1610	1575
100/15-20-073-07W4/00	RAX OB1A KIRBY 15-20-73-7	TC @ 460.5m	C2	36	1610	1575

- **102/10-20-073-07W4/00 (RAX OB2B KIRBY 10-20-73-7)**

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD producer well where obs well projects on (mKB MD)	Location on SAGD injector well where obs well projects on (mKB MD)
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 555.8m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 552.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 548.8m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 545.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 541.8m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 538.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 534.8m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 531.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 527.8m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 524.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 520.8m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 517.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 510.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 503.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 496.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 489.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 482.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 475.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 468.3m	D2	5.5	1425	1390
102/10-20-073-07W4/00	RAX OB2B KIRBY 10-20-73-7	TC @ 461.3m	D2	5.5	1425	1390



# • 102/10-28-073-07W4/00 (CNRL OBS KIRBY 10-28-73-7)

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD producer well where obs well projects on (mKB MD)	Location on SAGD injector well where obs well projects on (mKB MD)
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	PZ pressure @ 534.97m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	PZ pressure @ 474.16m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	PZ Temperature @ 534.97m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	PZ Temperature @ 474.16m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 549.9m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 546.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 542.9m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 539.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 535.9m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 532.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 528.9m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 525.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 521.9m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 518.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 514.9m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 511.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 504.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 497.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 490.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 483.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 476.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 469.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 462.4m	G2	36	1325	1295
102/10-28-073-07W4/00	CNRL OBS KIRBY 10-28-73-7	TC @ 455.4m	G2	36	1325	1295



# • 102/12-20-073-07W4/00 (CNRL OBS KIRBY 12-20-73-7)

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD producer well where obs well projects on (mKB MD)	Location on SAGD injector well where obs well projects on (mKB MD)
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	PZ pressure @ 553.32m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	PZ pressure @ 538.66m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	PZ pressure @ 477.1m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	PZ Temperature @ 553.32m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	PZ Temperature @ 538.66m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	PZ Temperature @ 477.1m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 553.2m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 549.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 546.2m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 542.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 539.2m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 535.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 532.2m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 528.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 525.2m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 521.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 518.2m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 514.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 507.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 500.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 493.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 486.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 479.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 472.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 465.7m	F3	9	1585	1555
102/12-20-073-07W4/00	CNRL OBS KIRBY 12-20-73-7	TC @ 458.7m	F3	9	1585	1555

- **102/15-20-073-07W4/00 (RAX OB1B KIRBY 15-20-73-7)**

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD producer well where obs well projects on (mKB MD)	Location on SAGD injector well where obs well projects on (mKB MD)
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 554.7m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 551.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 547.7m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 544.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 540.7m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 537.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 533.7m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 530.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 526.7m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 523.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 519.7m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 516.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 509.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 502.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 495.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 488.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 481.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 474.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 467.2m	D2	5	1530	1495
102/15-20-073-07W4/00	RAXOB1B KIRBY 15-20-73-7	TC @ 460.2m	D2	5	1530	1495

# • 104/09-21-073-07W4/00 (CNRL OBS KIRBY 9-21-73-7)

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD producer well where obs well projects on (mKB MD)	Location on SAGD injector well where obs well projects on (mKB MD)
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	PZ pressure @ 563.1m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	PZ pressure @ 530.15m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	PZ pressure @ 478.88m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	PZ Temperature @ 563.1m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	PZ Temperature @ 530.15m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	PZ Temperature @ 478.88m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 562.2m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 558.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 555.2m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 551.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 548.2m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 544.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 541.2m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 537.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 534.2m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 530.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 527.2m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 523.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 516.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 509.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 502.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 495.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 488.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 481.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 474.7m	A4	26	1040	1010
104/09-21-073-07W4/00	CNRL OBS KIRBY 9-21-73-7	TC @ 467.7m	A4	26	1040	1010



- **104/15-20-073-07W4/00 (RAX OB2A 15-20-73-7W4)**

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD producer well where obs well projects on (mKB MD)	Location on SAGD injector well where obs well projects on (mKB MD)
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 555.7m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 552.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 548.7m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 545.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 541.7m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 538.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 534.7m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 531.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 527.7m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 524.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 520.7m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 517.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 510.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 503.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 496.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 489.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 482.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 475.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 468.2m	C2	27	1510	1475
104/15-20-073-07W4/00	RAX OB2A 15-20-73-7W4	TC @ 461.2m	C2	27	1510	1475

- **105/11-20-073-07W4/00 (RAX OB2C KIRBY 11-20-73-7)**

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD <b>producer</b> well where obs well projects on (mKB MD)	Location on SAGD <b>injector</b> well where obs well projects on (mKB MD)
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	PZ pressure @ 555m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	PZ pressure @ 553.23m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	PZ Temperature @ 495m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	PZ Temperature @ 493.23m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 554m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 550.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 547m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 543.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 540m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 536.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 533m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 529.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 526m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 522.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 519m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 515.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 508.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 501.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 494.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 487.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 480.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 473.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 466.5m	D6	37	1480	1455
105/11-20-073-07W4/00	RAX OB2C KIRBY 11-20-73-7	TC @ 459.5m	D6	37	1480	1455

- **1AB/11-20-073-07W4/00 (RAX OB1C KIRBY 11-20-73-7)**

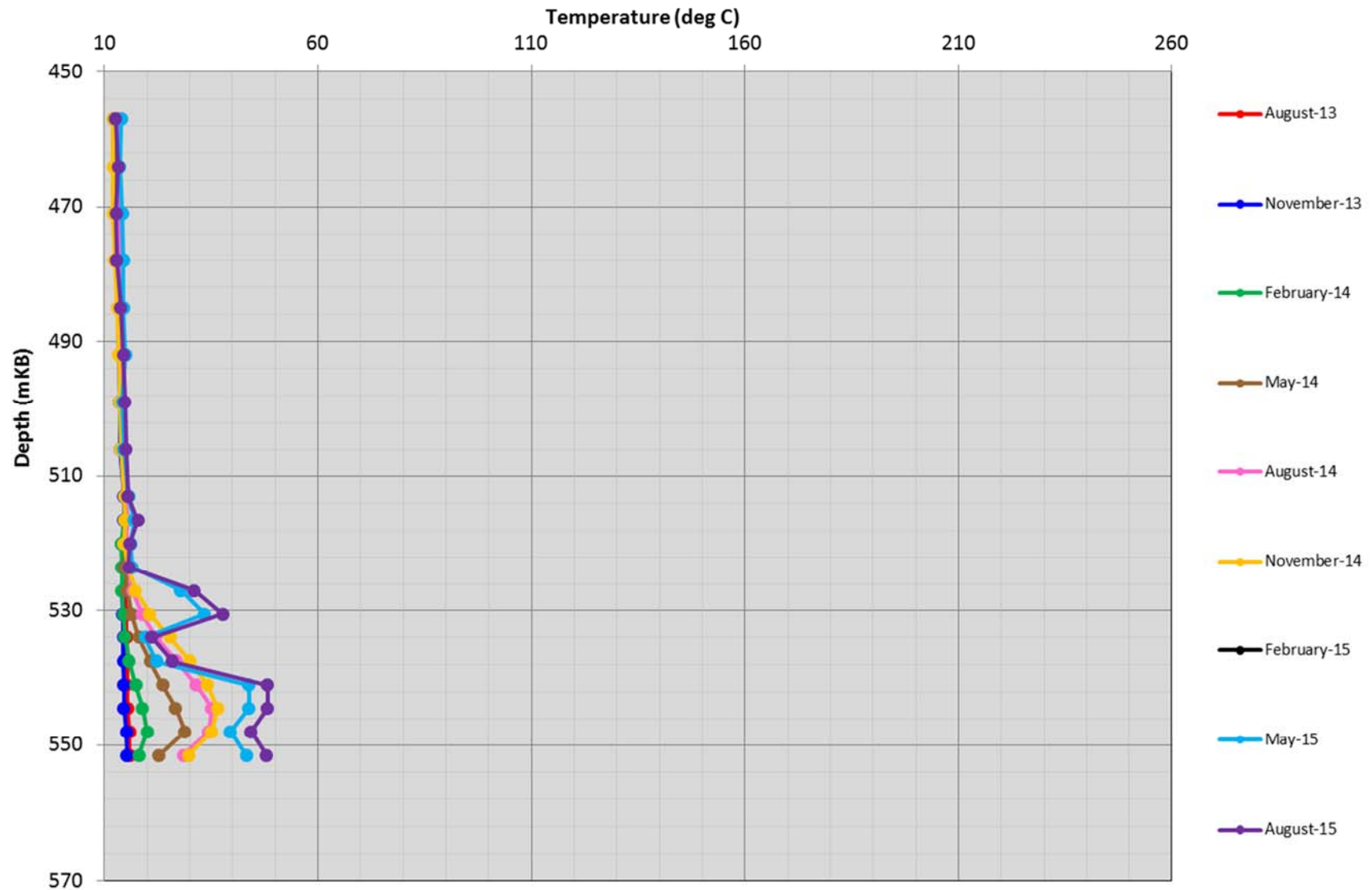
UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD <b>producer</b> well where obs well projects on (mKB MD)	Location on SAGD <b>injector</b> well where obs well projects on (mKB MD)
1AB/11-20-073-07W4/00	RAX OB1C KIRBY 11-20-73-7	TC @ 473.2m	D6	7.5	1575	1550
1AB/11-20-073-07W4/00	RAX OB1C KIRBY 11-20-73-7	TC @ 470.2m	D6	7.5	1575	1550
1AB/11-20-073-07W4/00	RAX OB1C KIRBY 11-20-73-7	TC @ 467.2m	D6	7.5	1575	1550
1AB/11-20-073-07W4/00	RAX OB1C KIRBY 11-20-73-7	TC @ 464.2m	D6	7.5	1575	1550
1AB/11-20-073-07W4/00	RAX OB1C KIRBY 11-20-73-7	TC @ 461.2m	D6	7.5	1575	1550
1AB/11-20-073-07W4/00	RAX OB1C KIRBY 11-20-73-7	TC @ 458.2m	D6	7.5	1575	1550
1AB/11-20-073-07W4/00	RAX OB1C KIRBY 11-20-73-7	TC @ 455.2m	D6	7.5	1575	1550
1AB/11-20-073-07W4/00	RAX OB1C KIRBY 11-20-73-7	TC @ 452.2m	D6	7.5	1575	1550
1AB/11-20-073-07W4/00	RAX OB1C KIRBY 11-20-73-7	TC @ 449.2m	D6	7.5	1575	1550
1AB/11-20-073-07W4/00	RAX OB1C KIRBY 11-20-73-7	TC @ 446.2m	D6	7.5	1575	1550

- **100/06-21-073-07W4/00 (CNRL OBS KIRBY 6-21-73-7)**

UWI	Well Name	Measuring Instrument/Depth	Associated Well Pair	Distance to Associated Well Pair	Location on SAGD <b>producer</b> well where obs well projects on (mKB MD)	Location on SAGD <b>injector</b> well where obs well projects on (mKB MD)
100/06-21-073-07W4/00	CNRL OBS KIRBY 6-21-73-7	PZ pressure @563.9m	E1	6	850	800
100/06-21-073-07W4/00	CNRL OBS KIRBY 6-21-73-7	PZ pressure @548.37m	E1	6	850	800
100/06-21-073-07W4/00	CNRL OBS KIRBY 6-21-73-7	PZ pressure @482.63m	E1	6	850	800

# F Pad Temperature

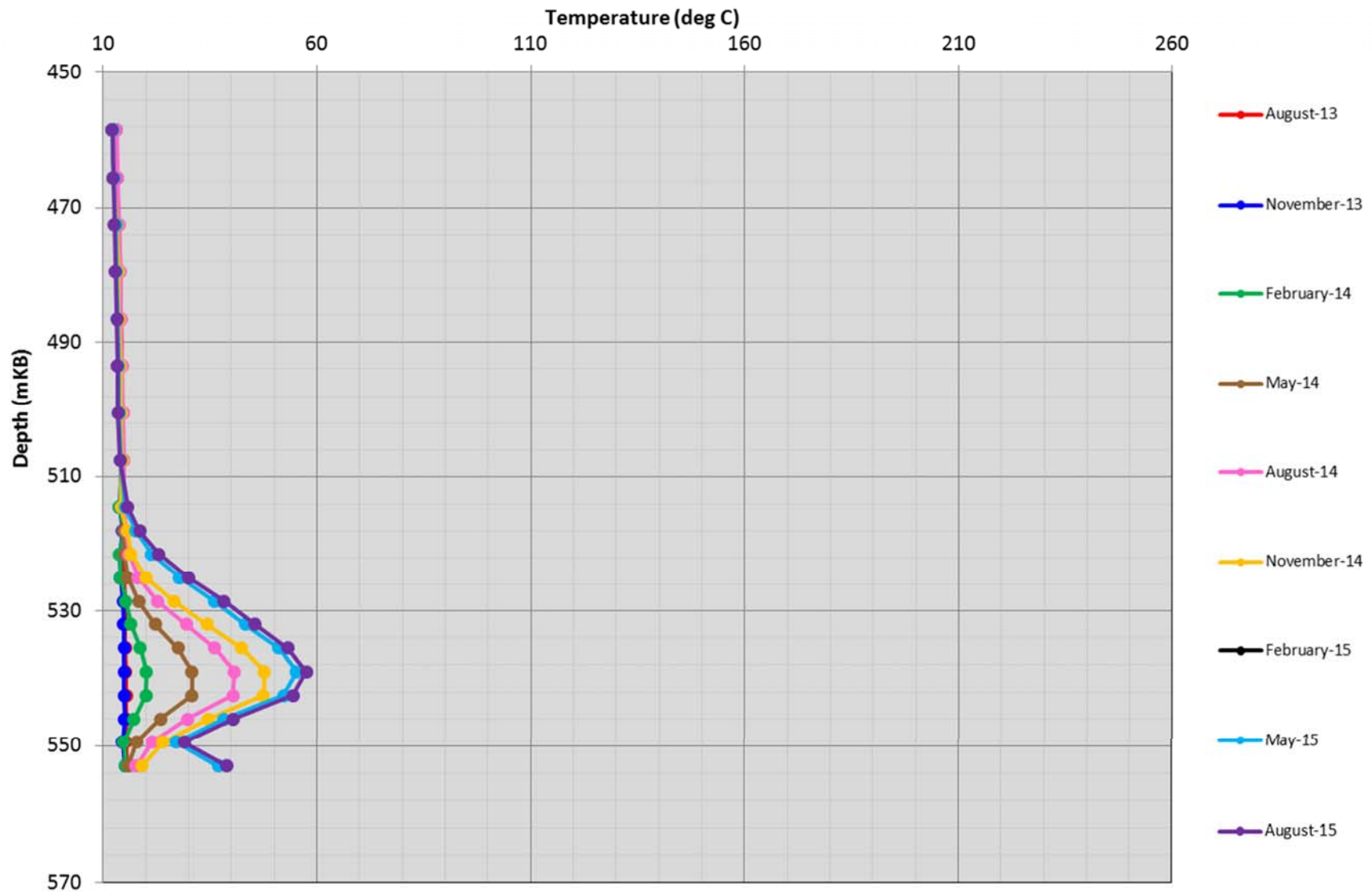
F 3 -29 - 100/03-29-073-07W4





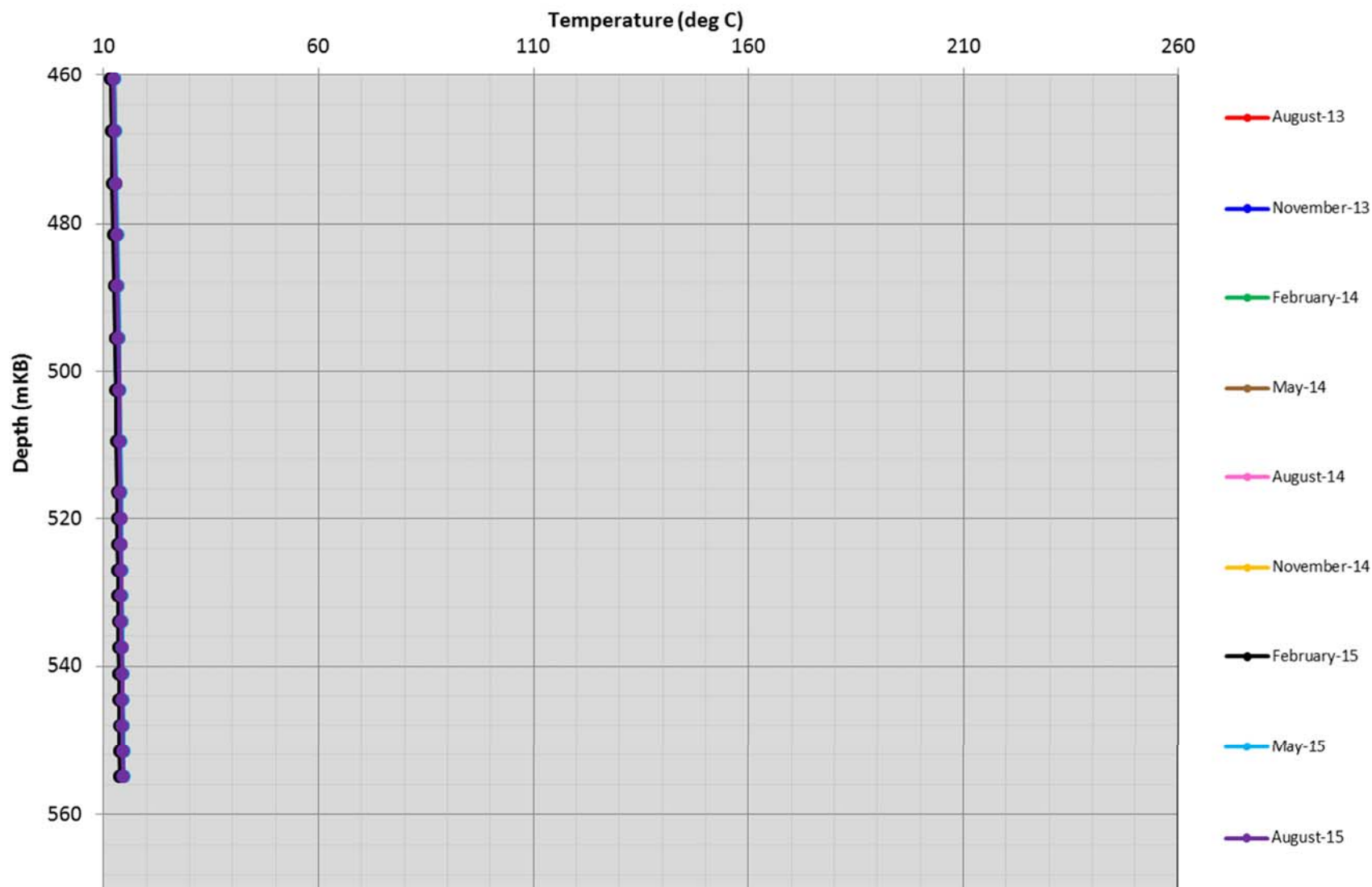
# F Pad Temperature

F 12-20 - 102/12-20-073-07W4



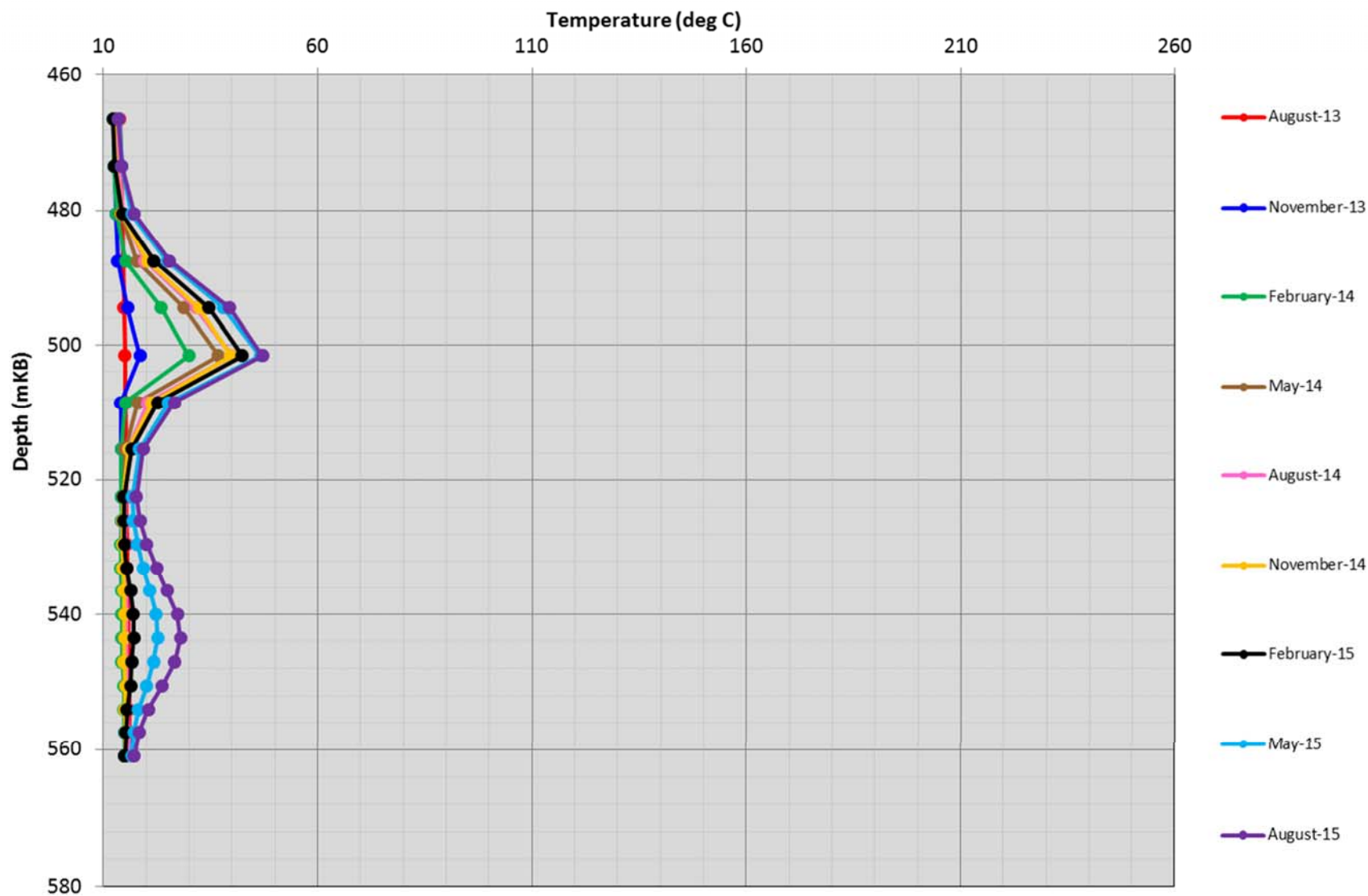
# D Pad Temperature

D 7-20 - 100/07-20-073-07W4



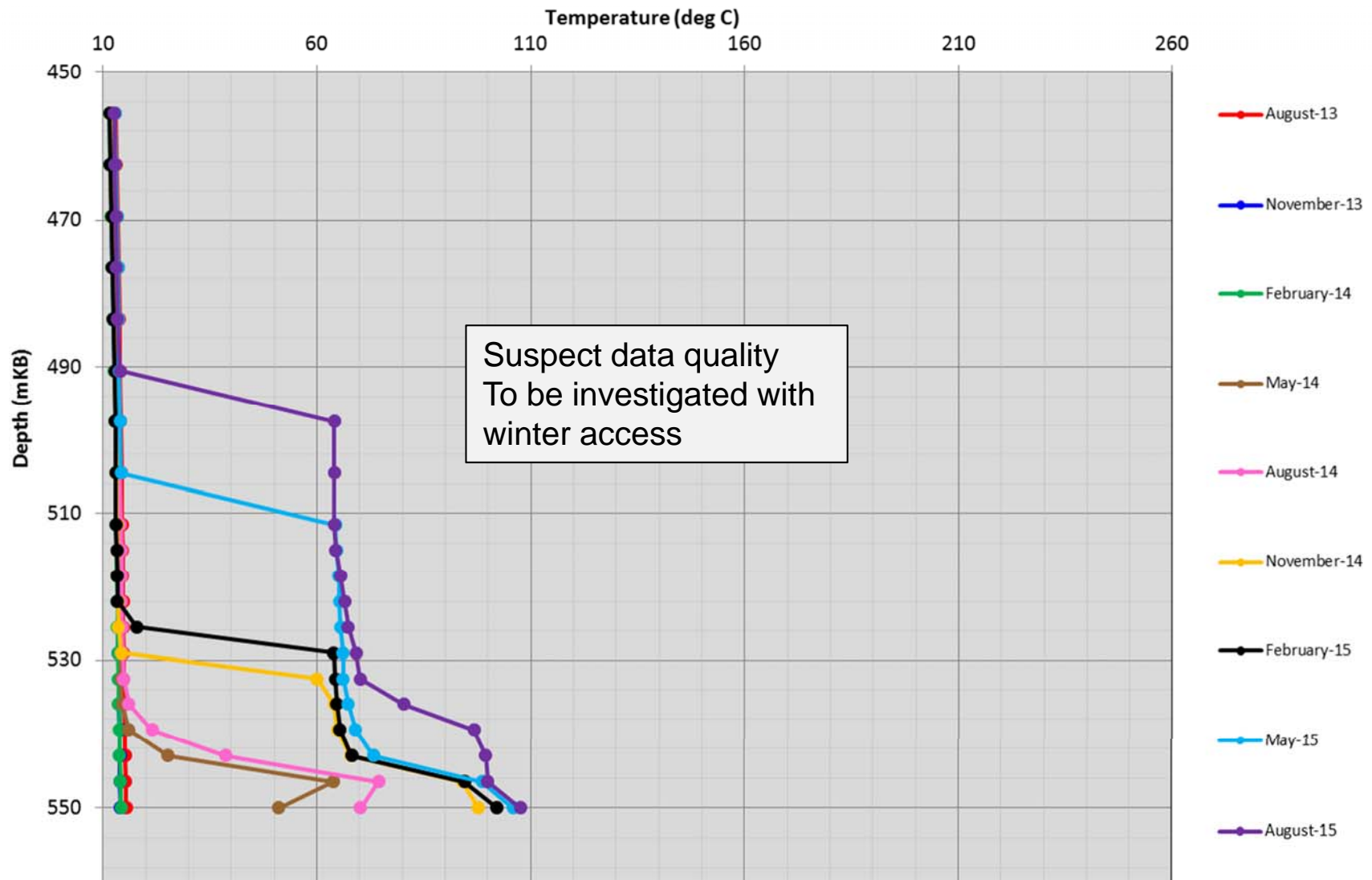
# B Pad Temperature

B 10-21- 100/10-21-073-07W4



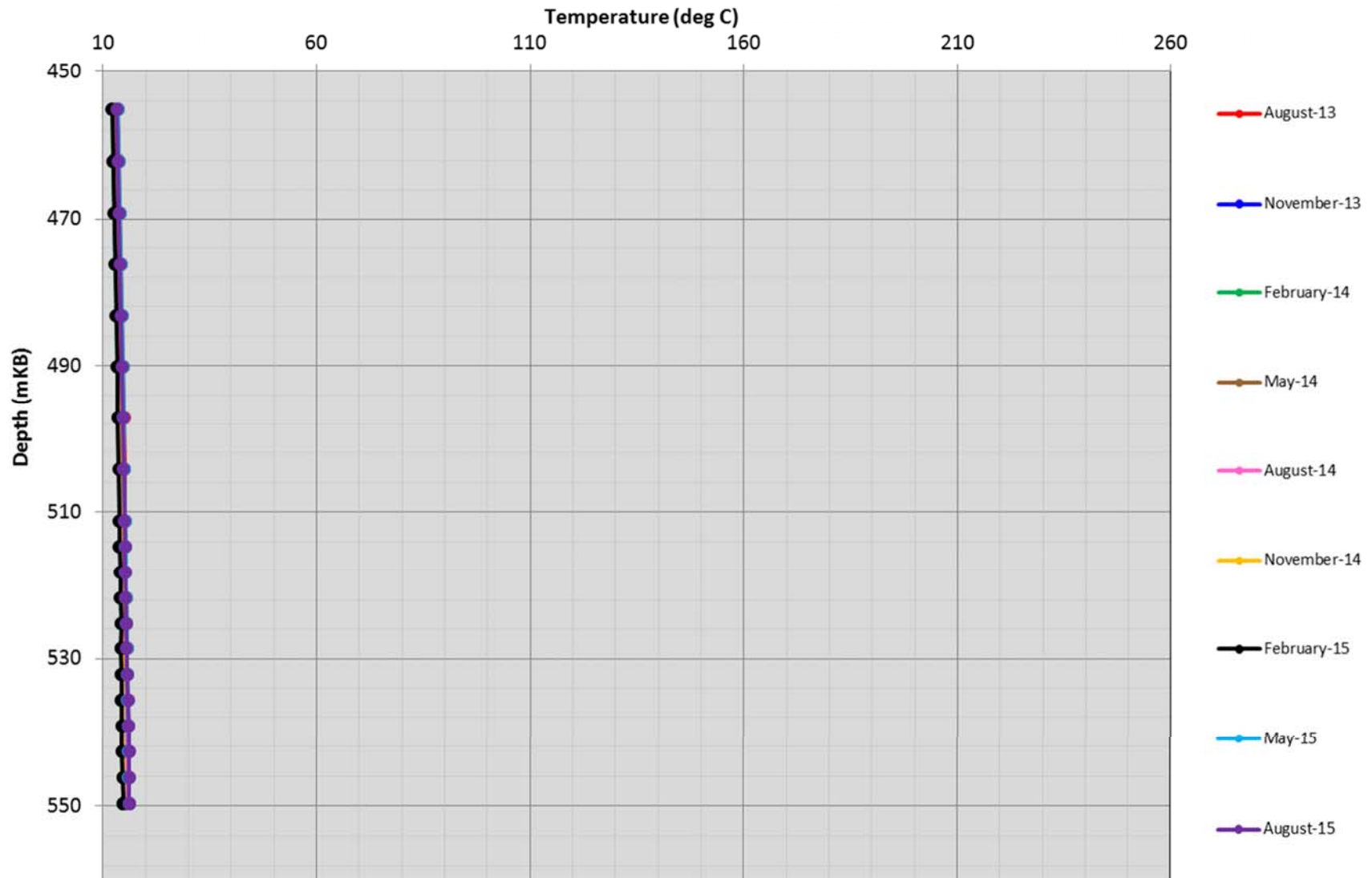
# G Pad Temperature

G 9-28 - 100/09-28-073-07W4



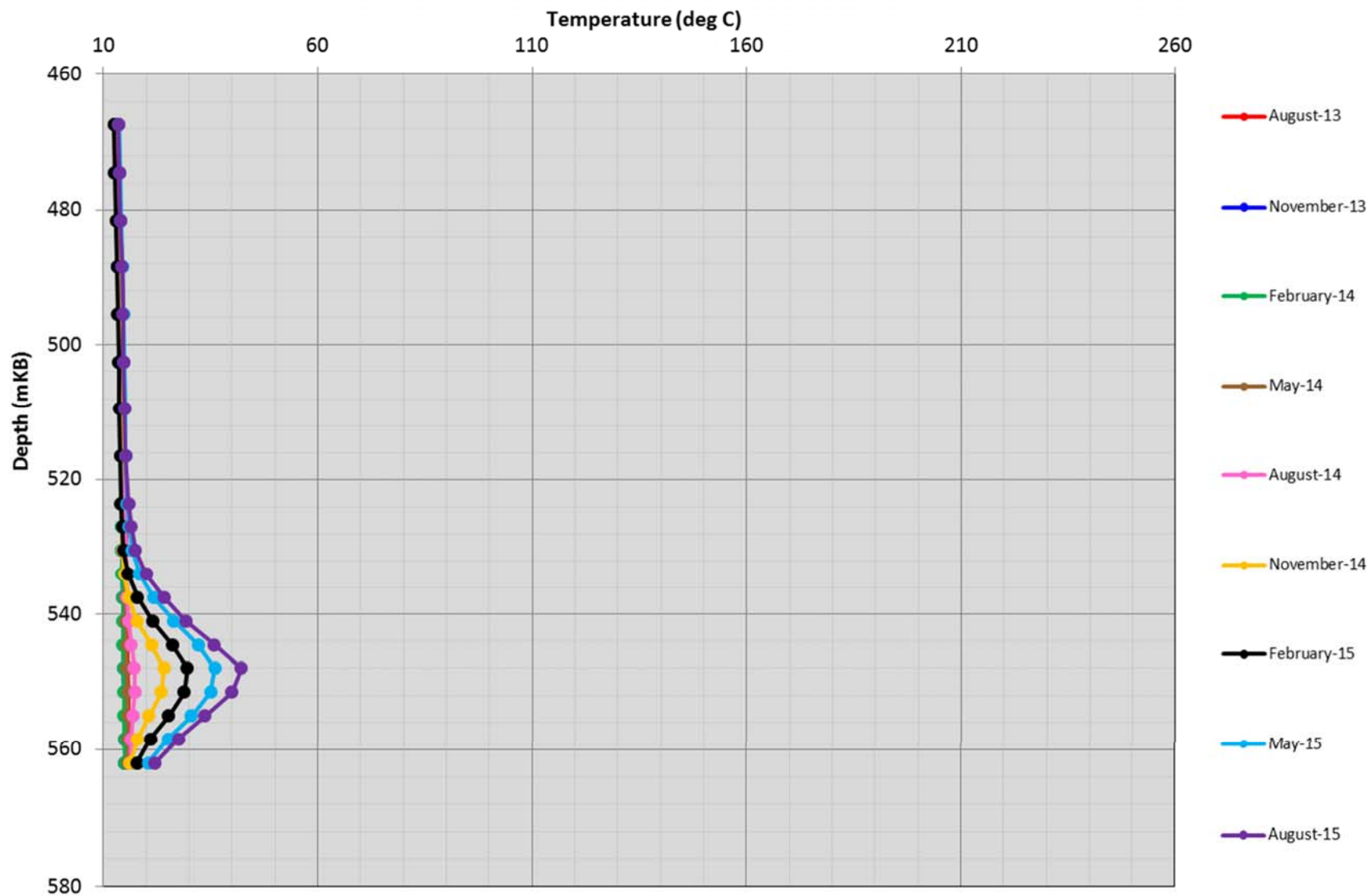
# G Pad Temperature

G 10-28- 102/10-28-073-07W4



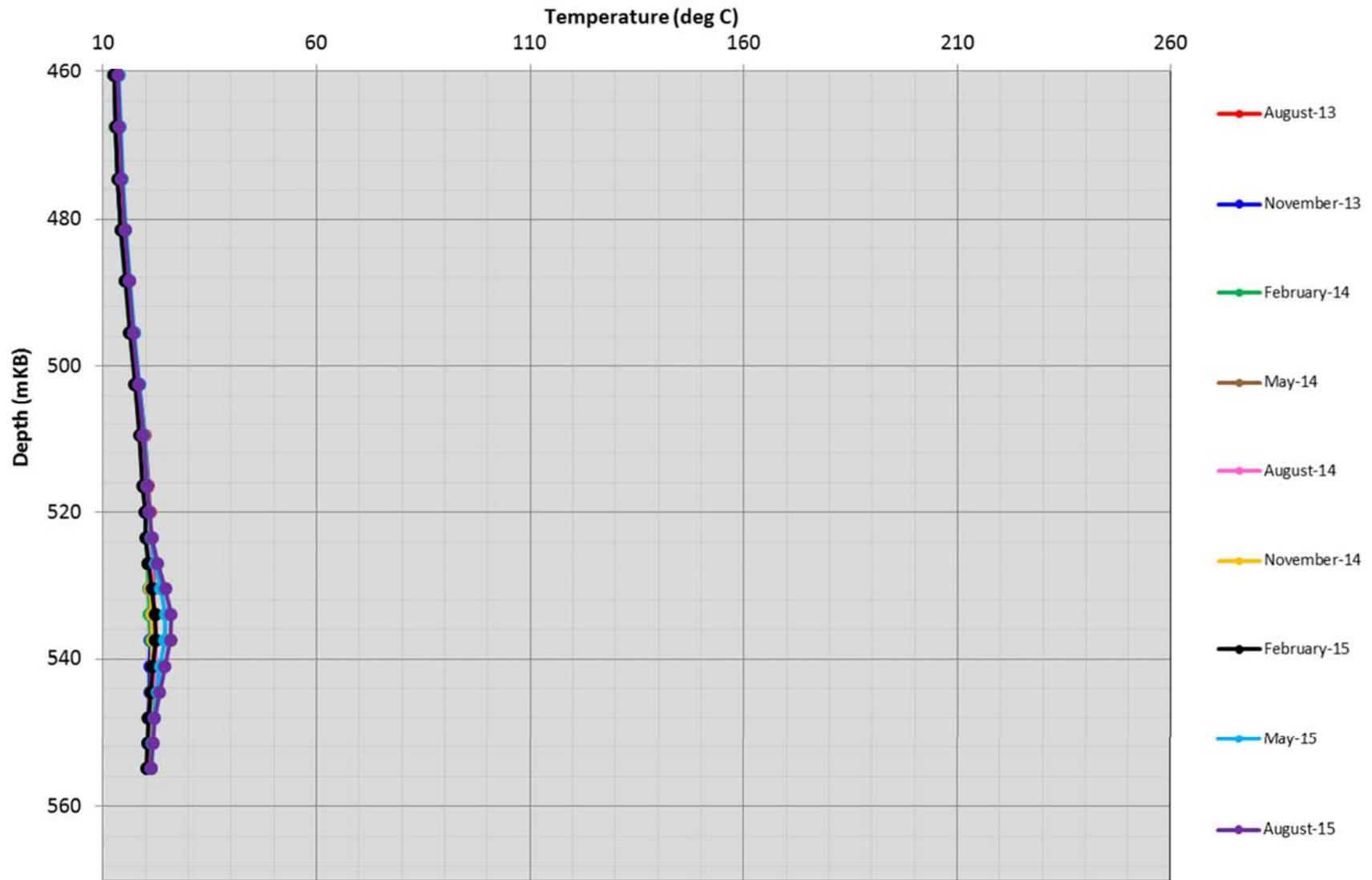
# A Pad Temperature

A 9-21 - 104/09-21-073-07W4



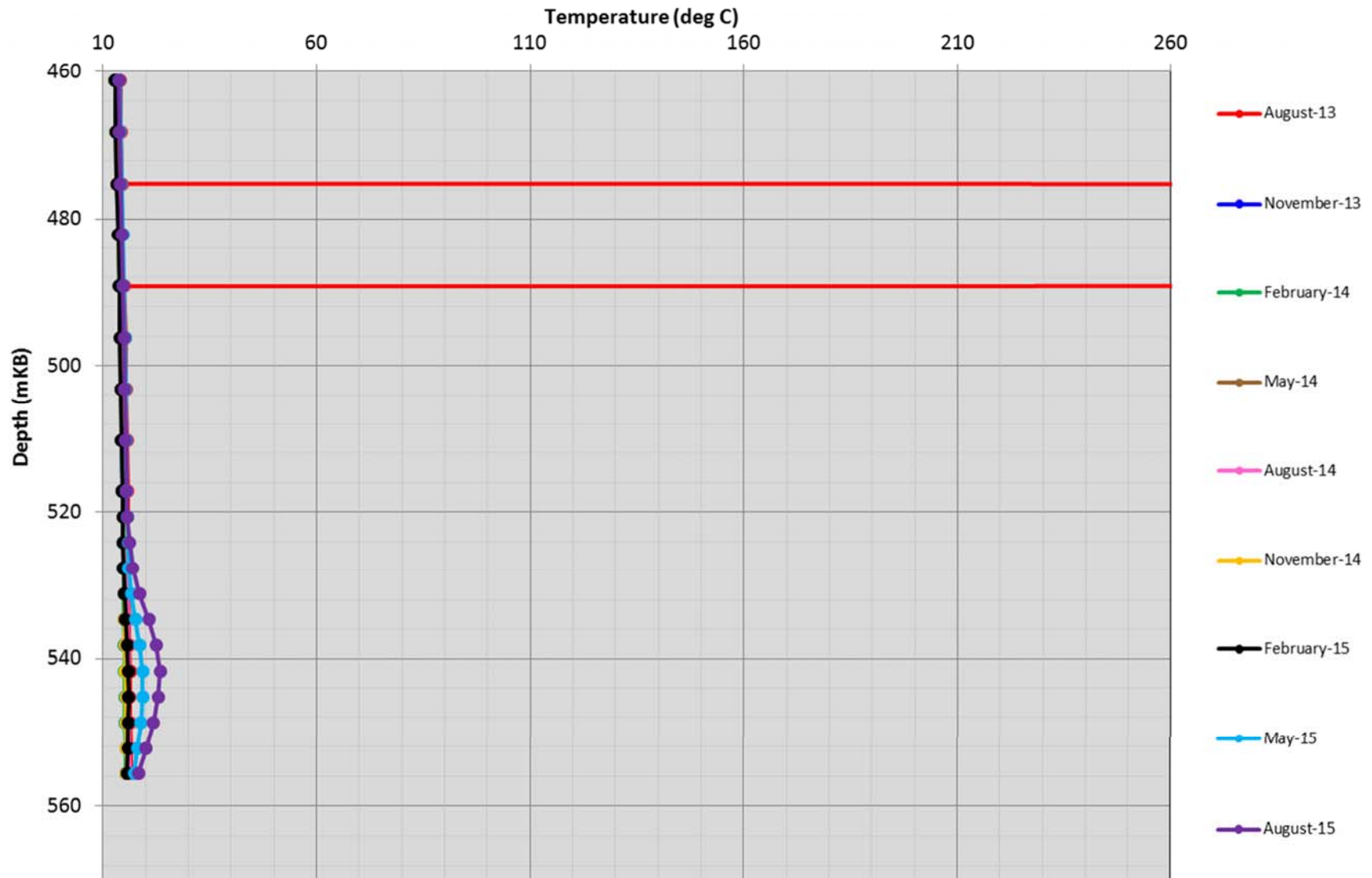
# C Pad Temperature

OB1A - 100/15-20-073-07W4



# C Pad Temperature

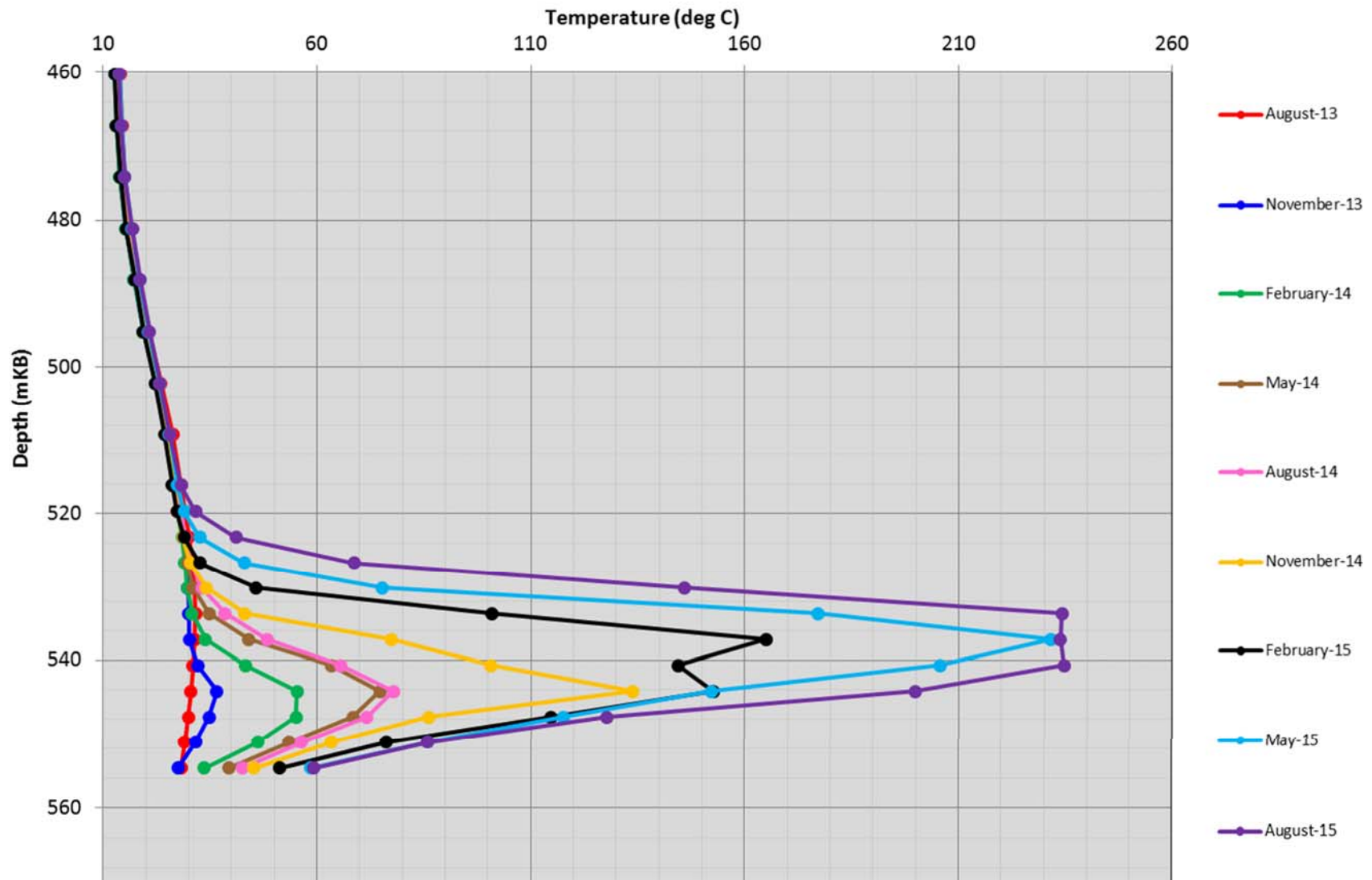
OB2A - 104/15-20-073-07W4





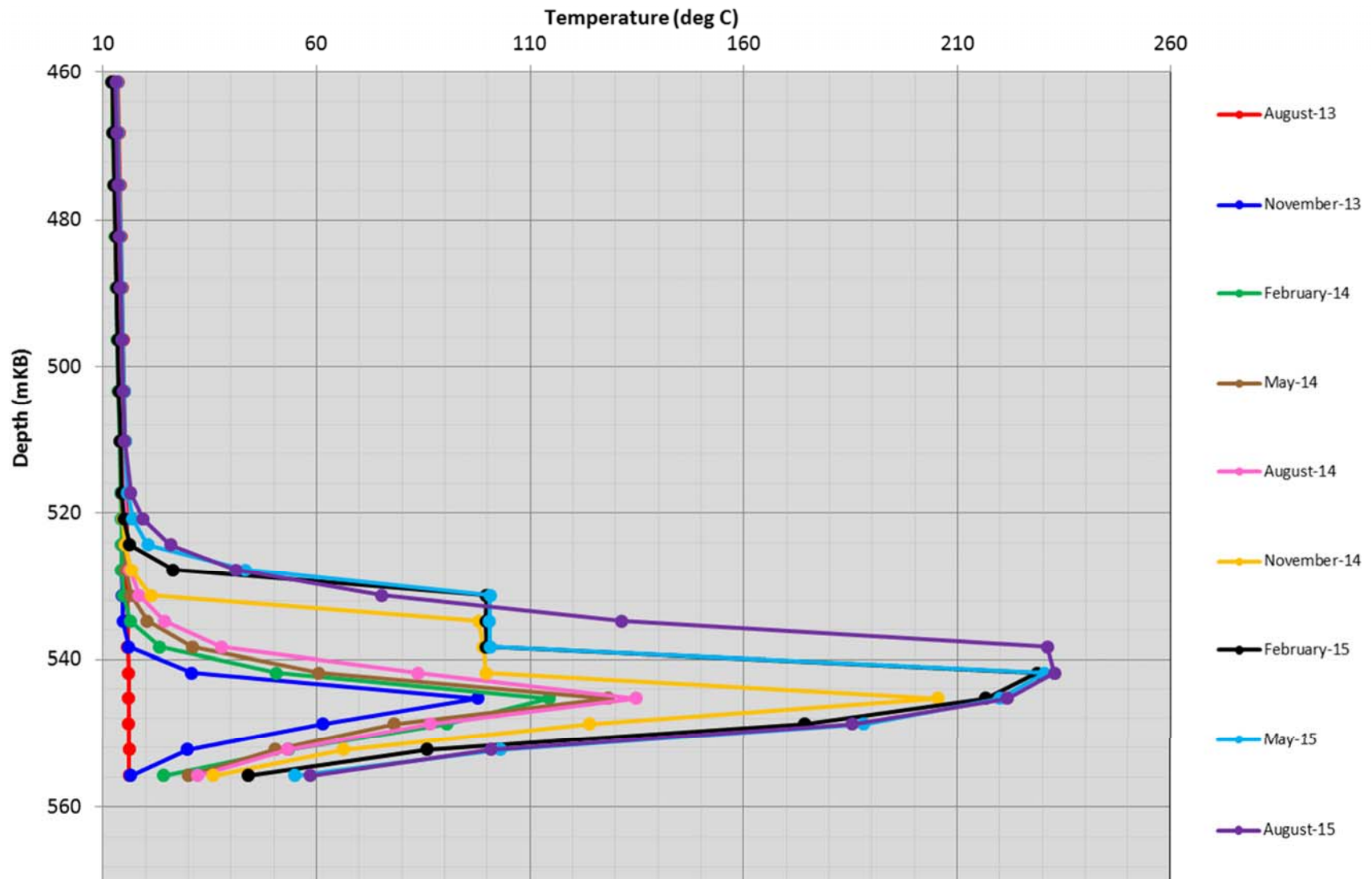
# Table Layout

OB1B - 102/15-20-073-07W4



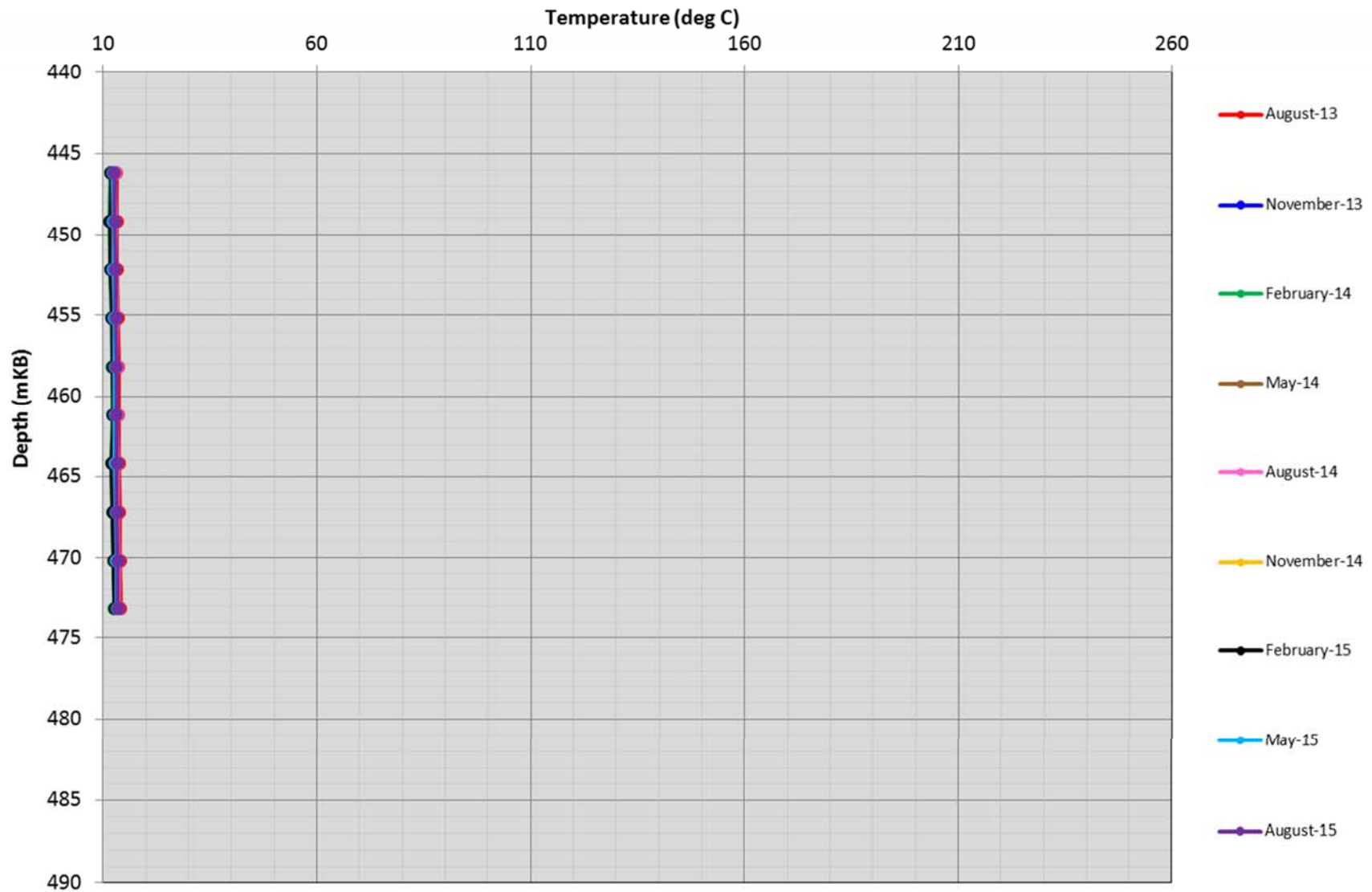
# Table Layout

OB2B - 102/10-20-073-07W4



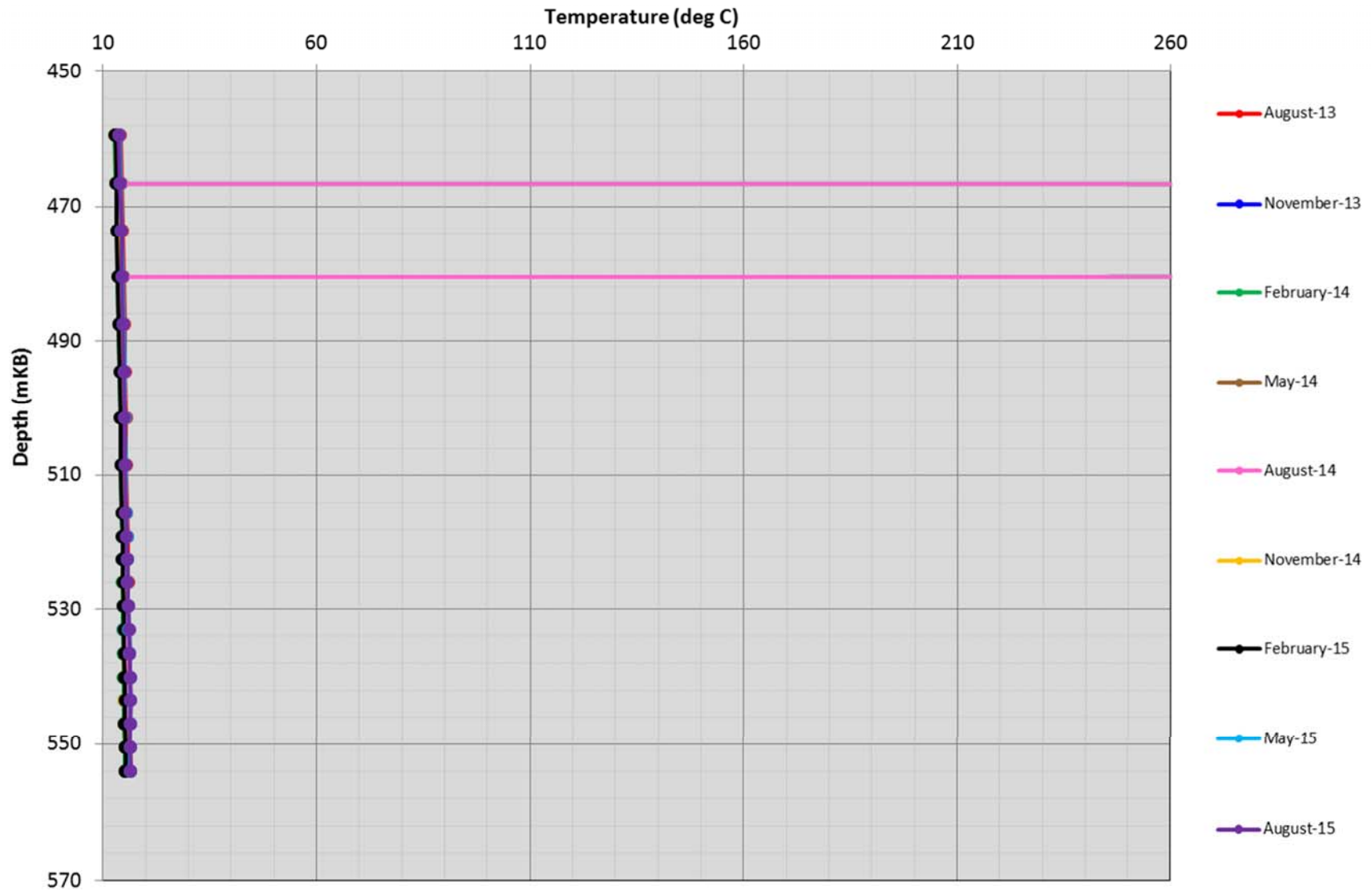
# D Pad Temperature

OB1C - 1AB/11-20-73-07W4



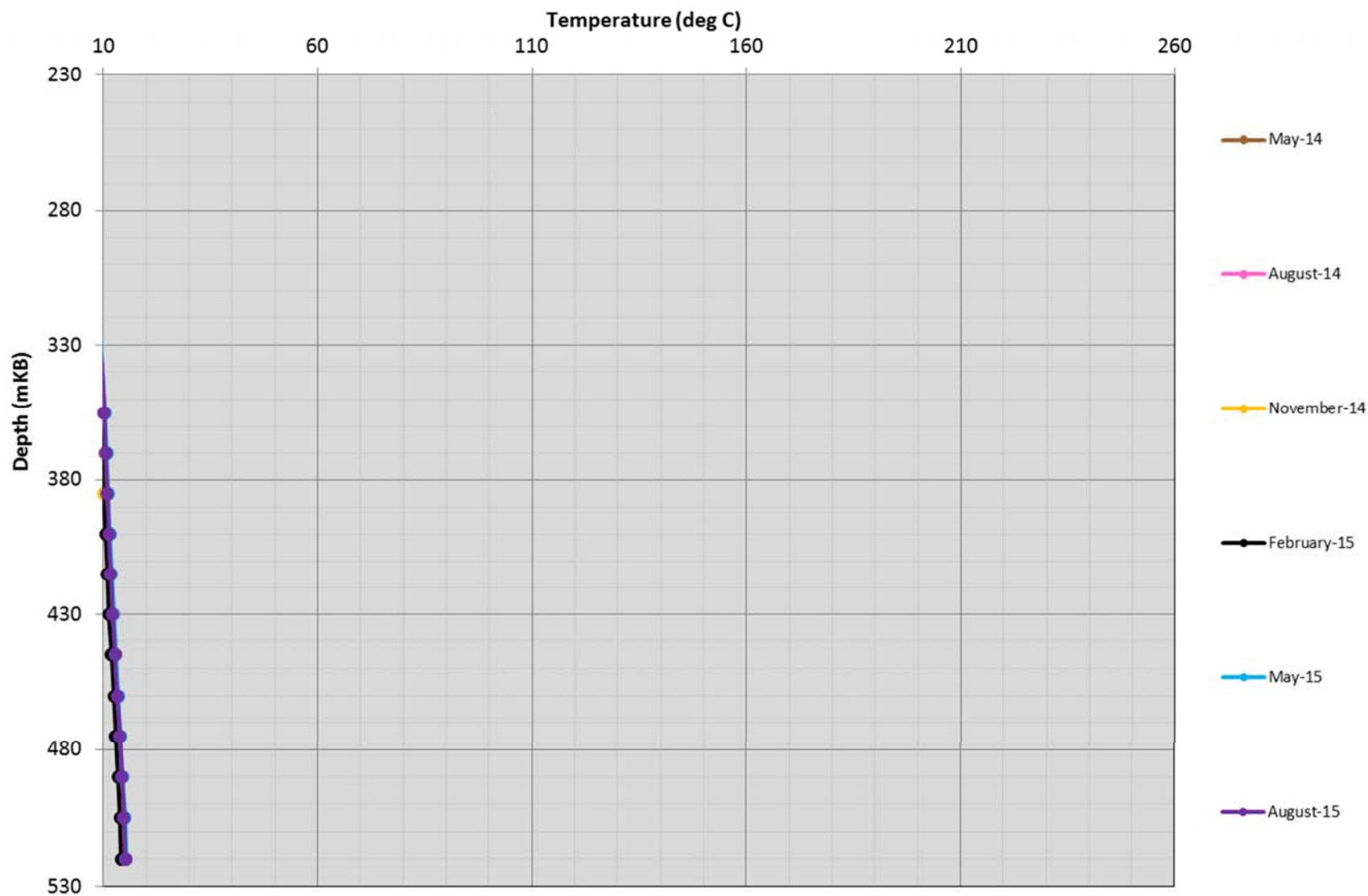
# D Pad Temperature

OB2C - 105/11-20-073-07W4



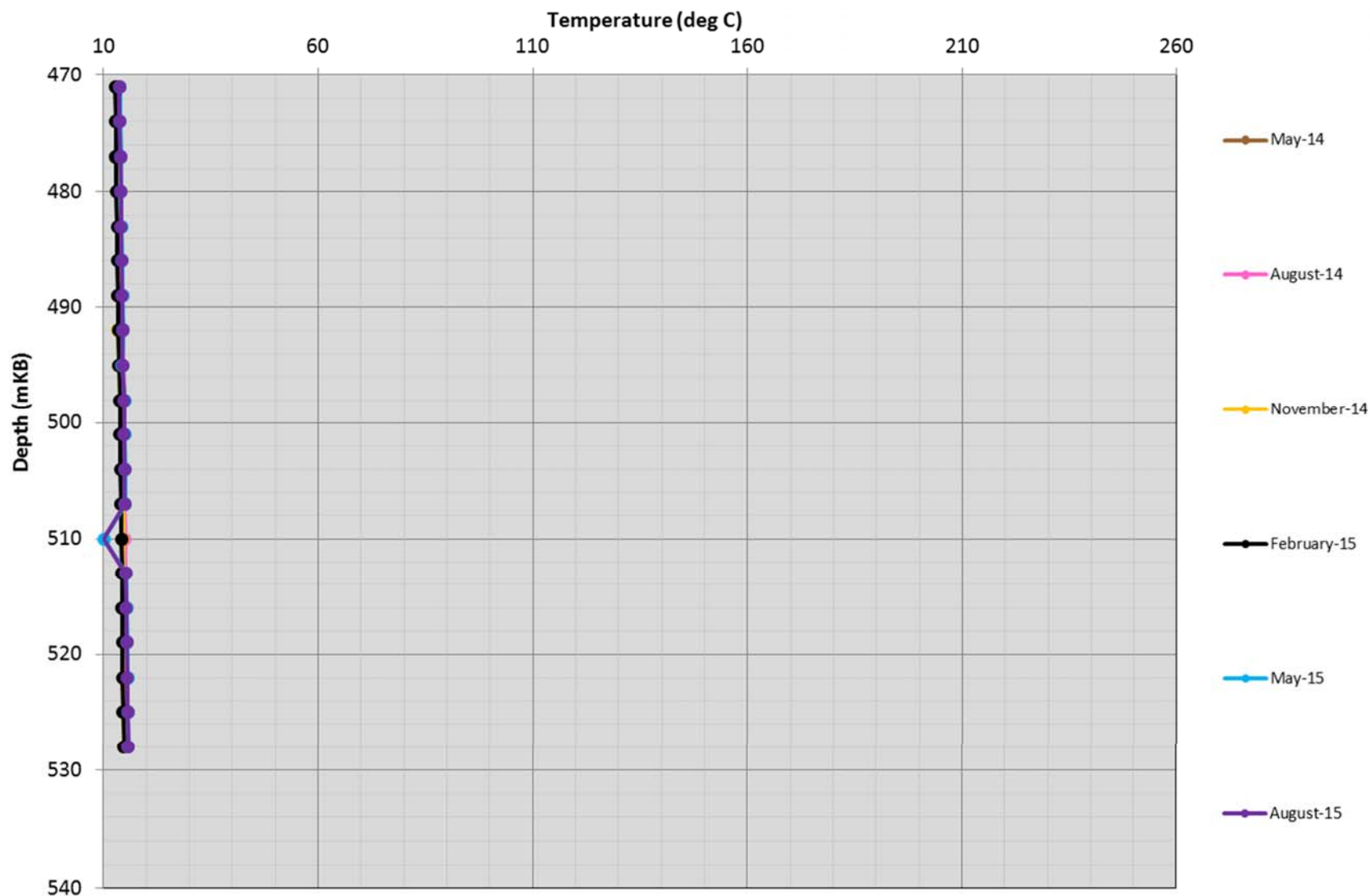
# D Pad Temperature

11-22 - 1AA/11-22-073-07W4

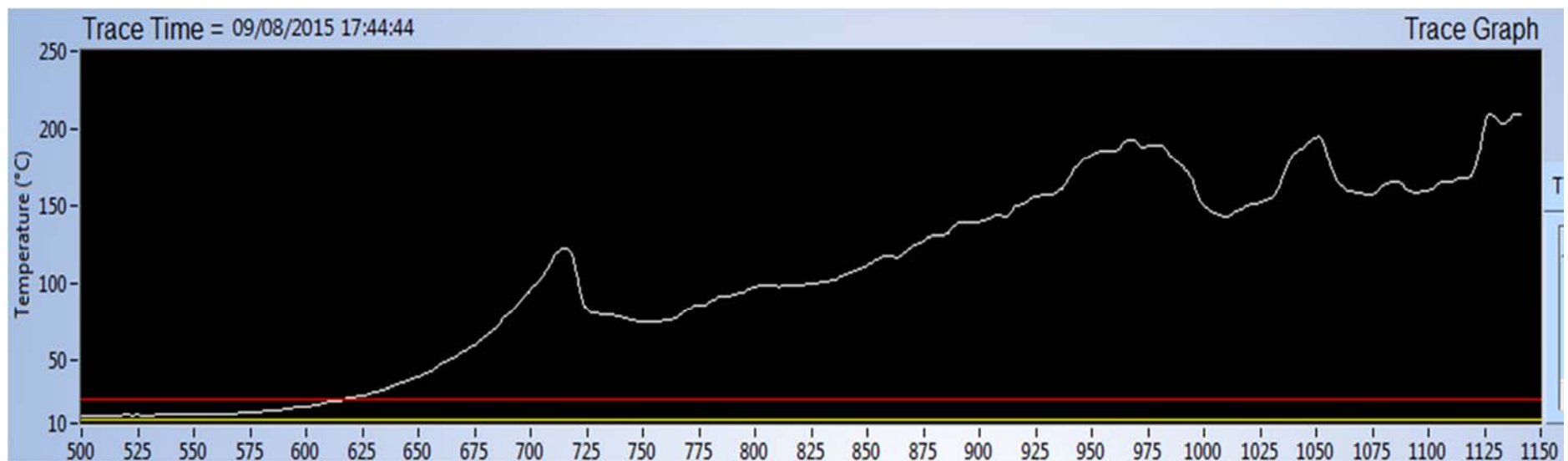


# D Pad Temperature

10-28 - 102/10-28-073-07W4



# RAX Horizontal Obs Well







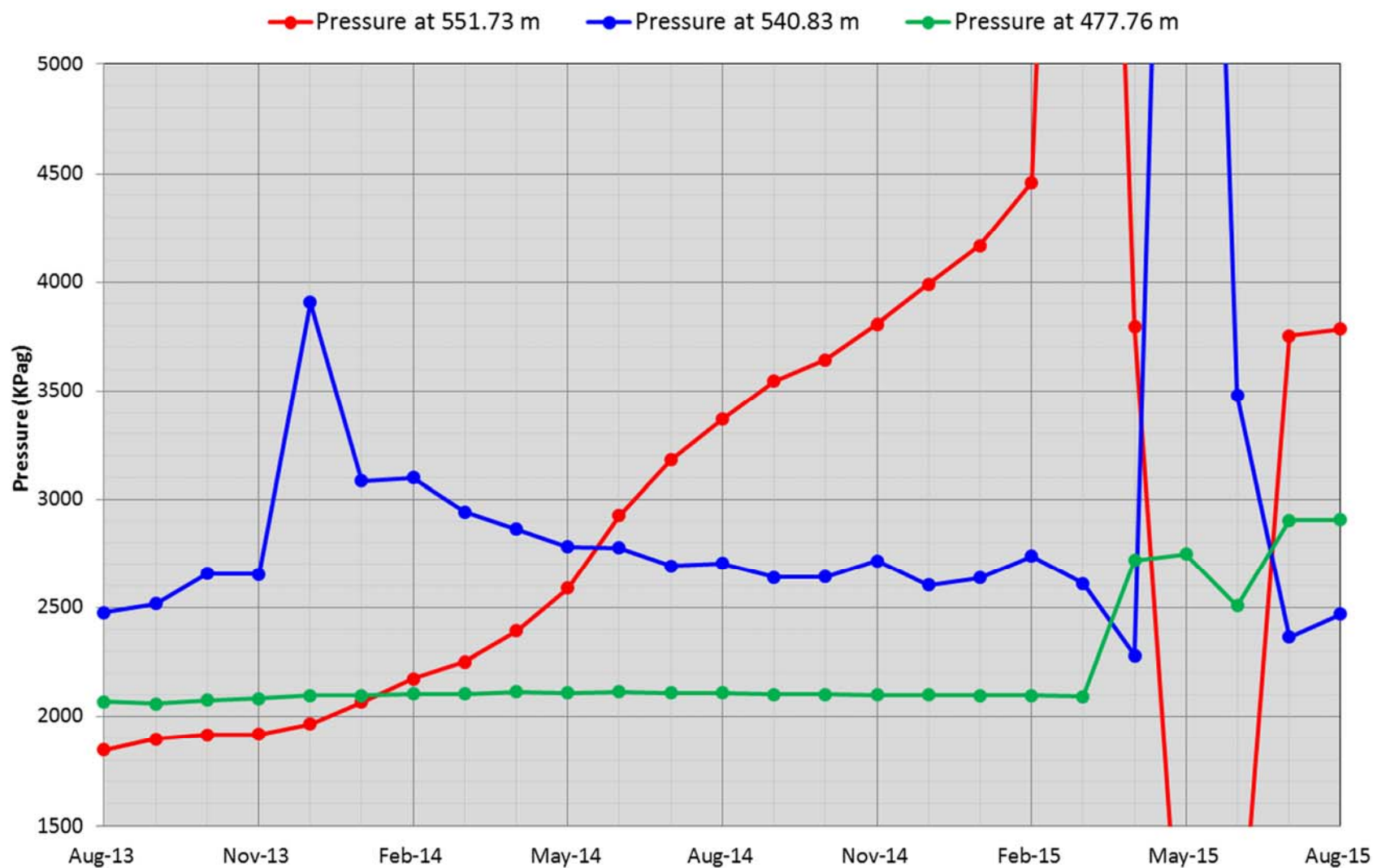
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# Pressure Plots



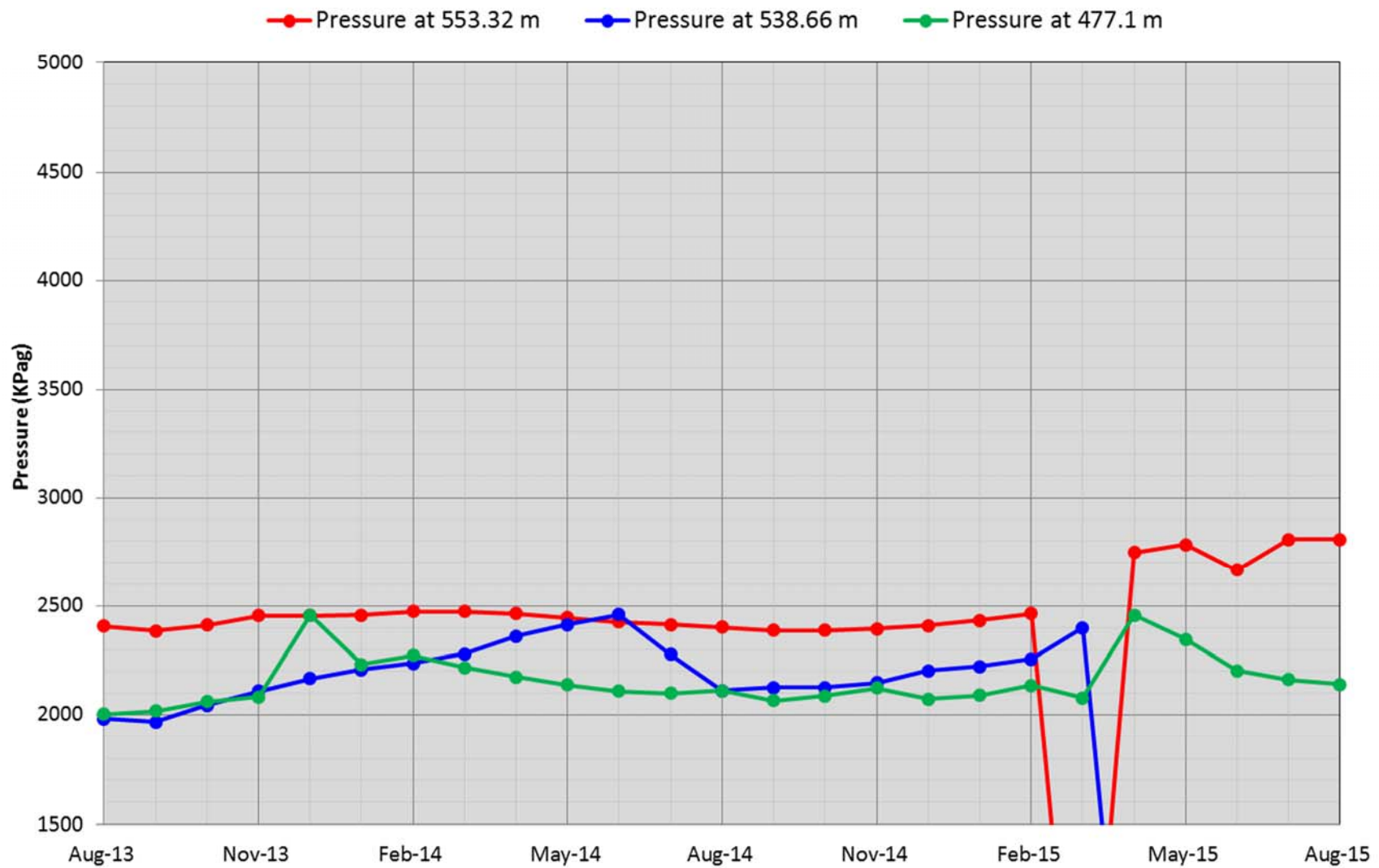
# F Pad Pressure

F 3 -29 - 100/03-29-073-07W4



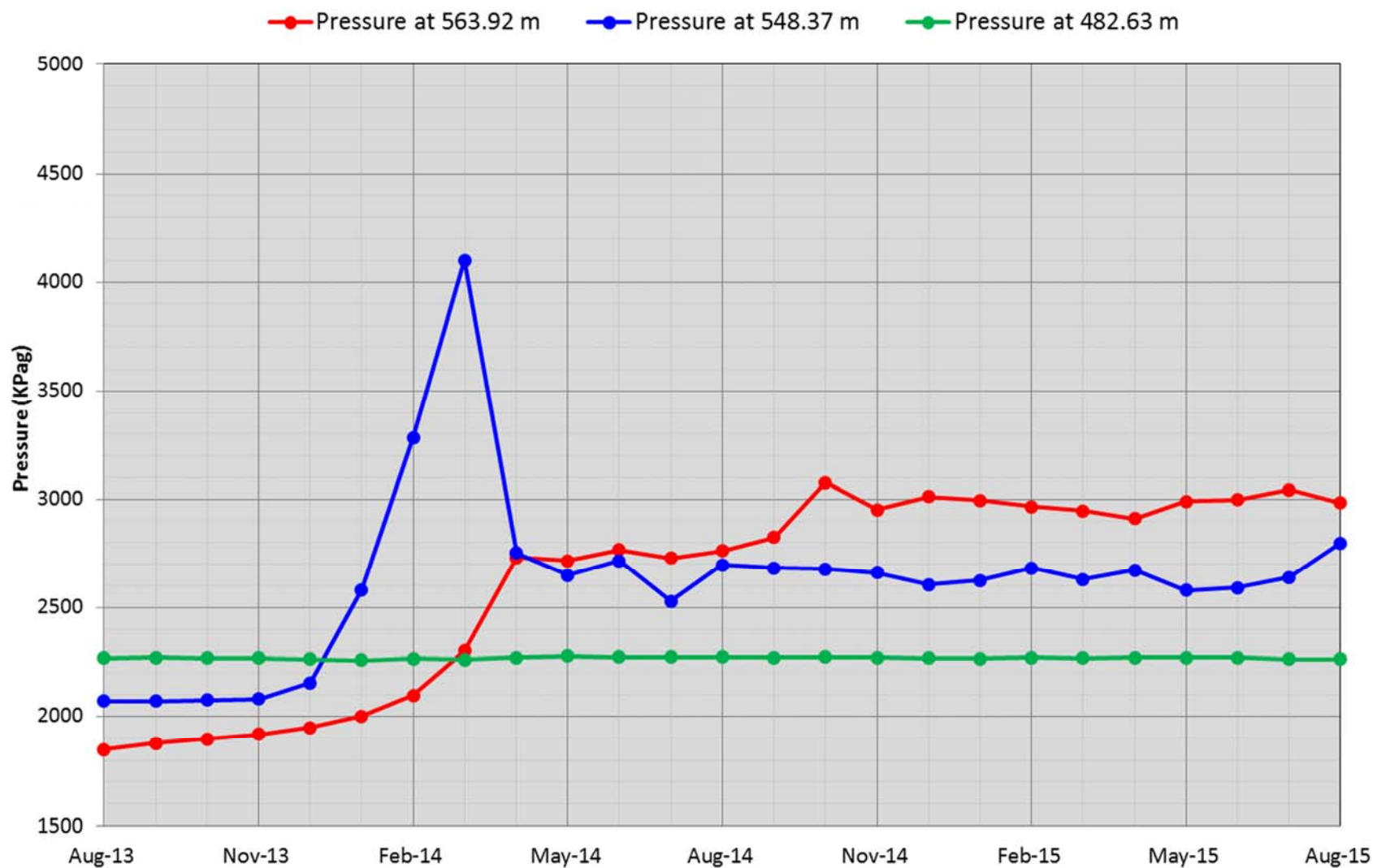
# F Pad Pressure

F 12-20- 102/12-20-073-07W4



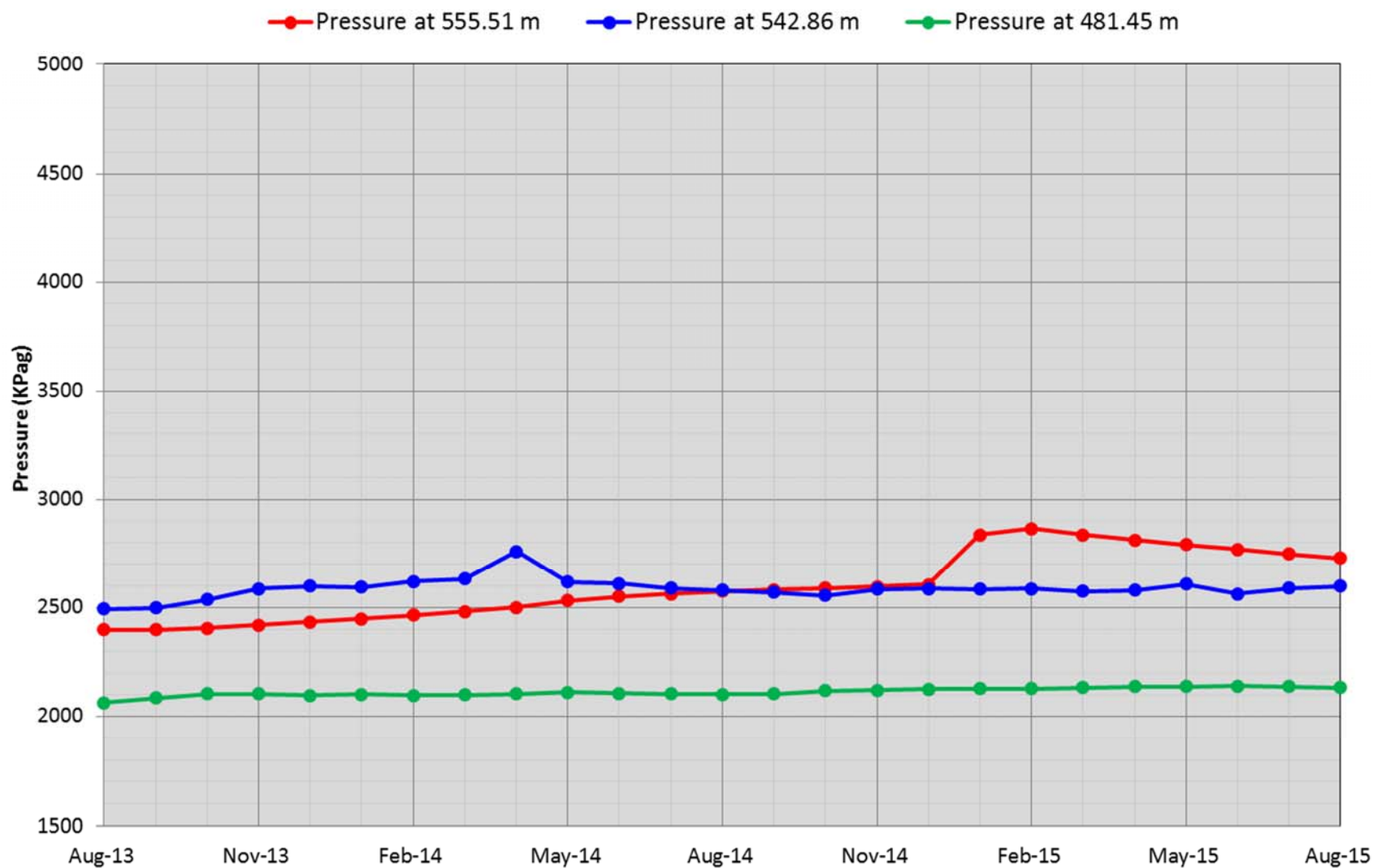
# E Pad Pressure

E 6-21 - 100/06-21-073-07W4

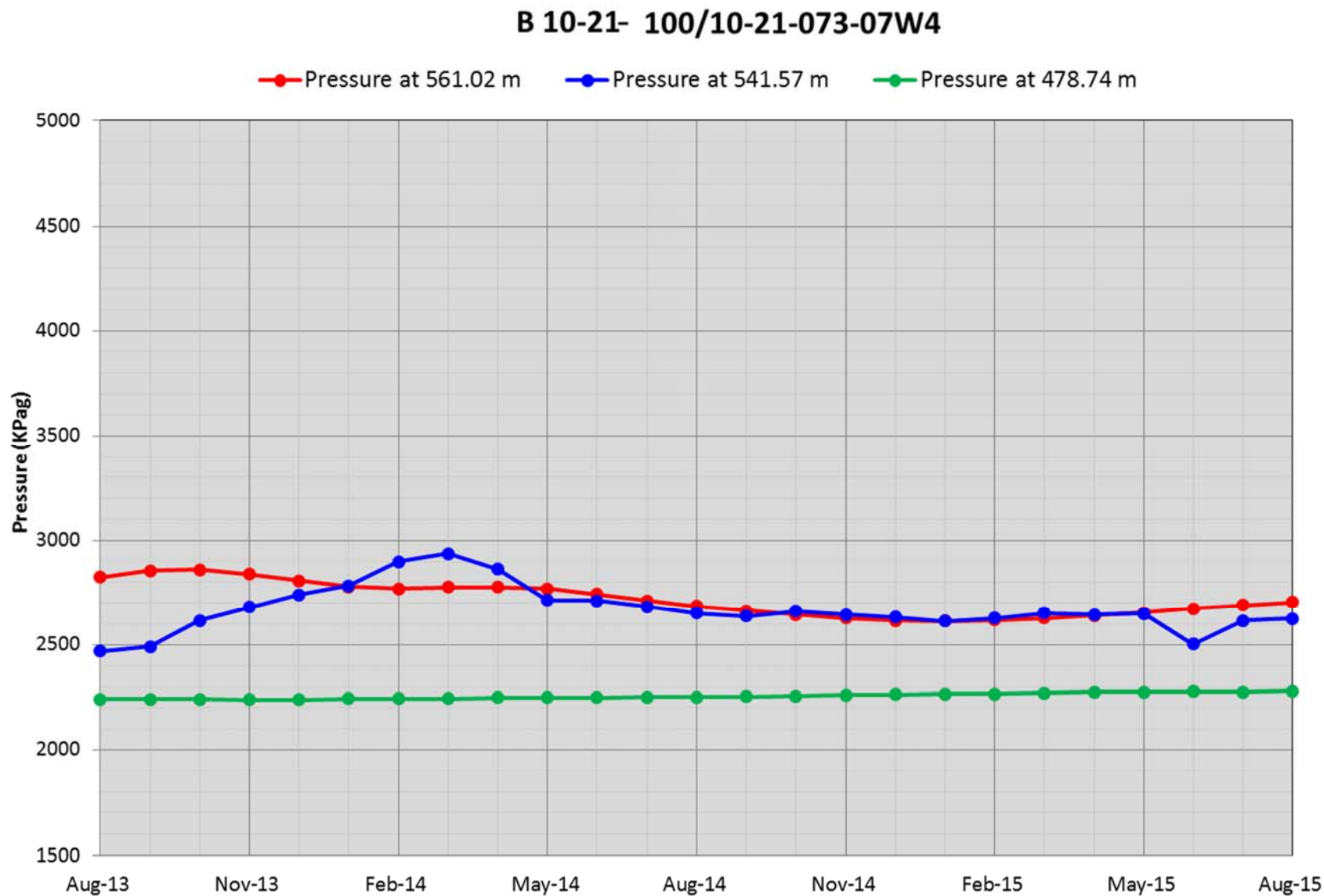


# D Pad Pressure

D 7-20 - 100/07-20-073-07W4



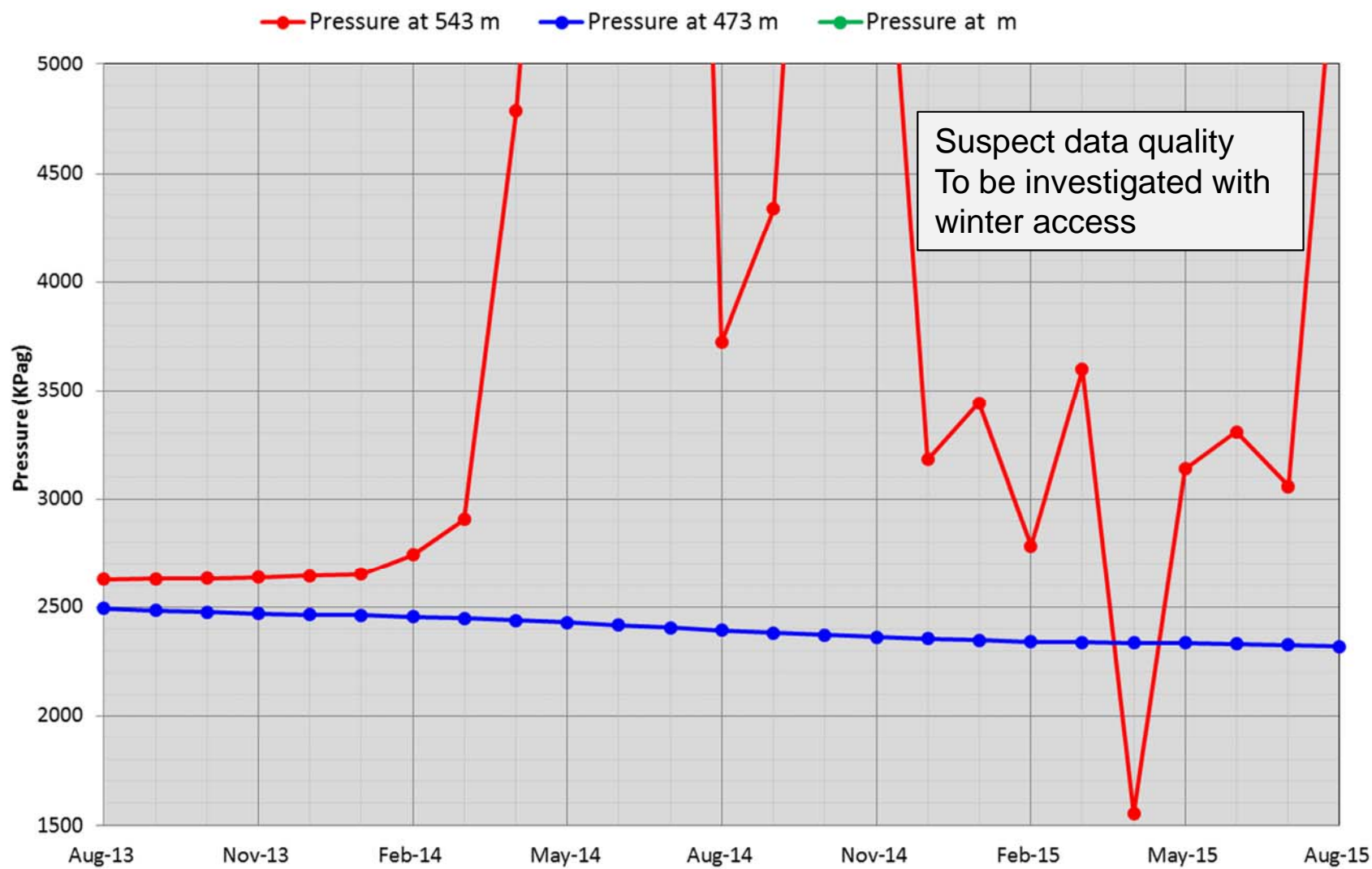
# B Pad Pressure





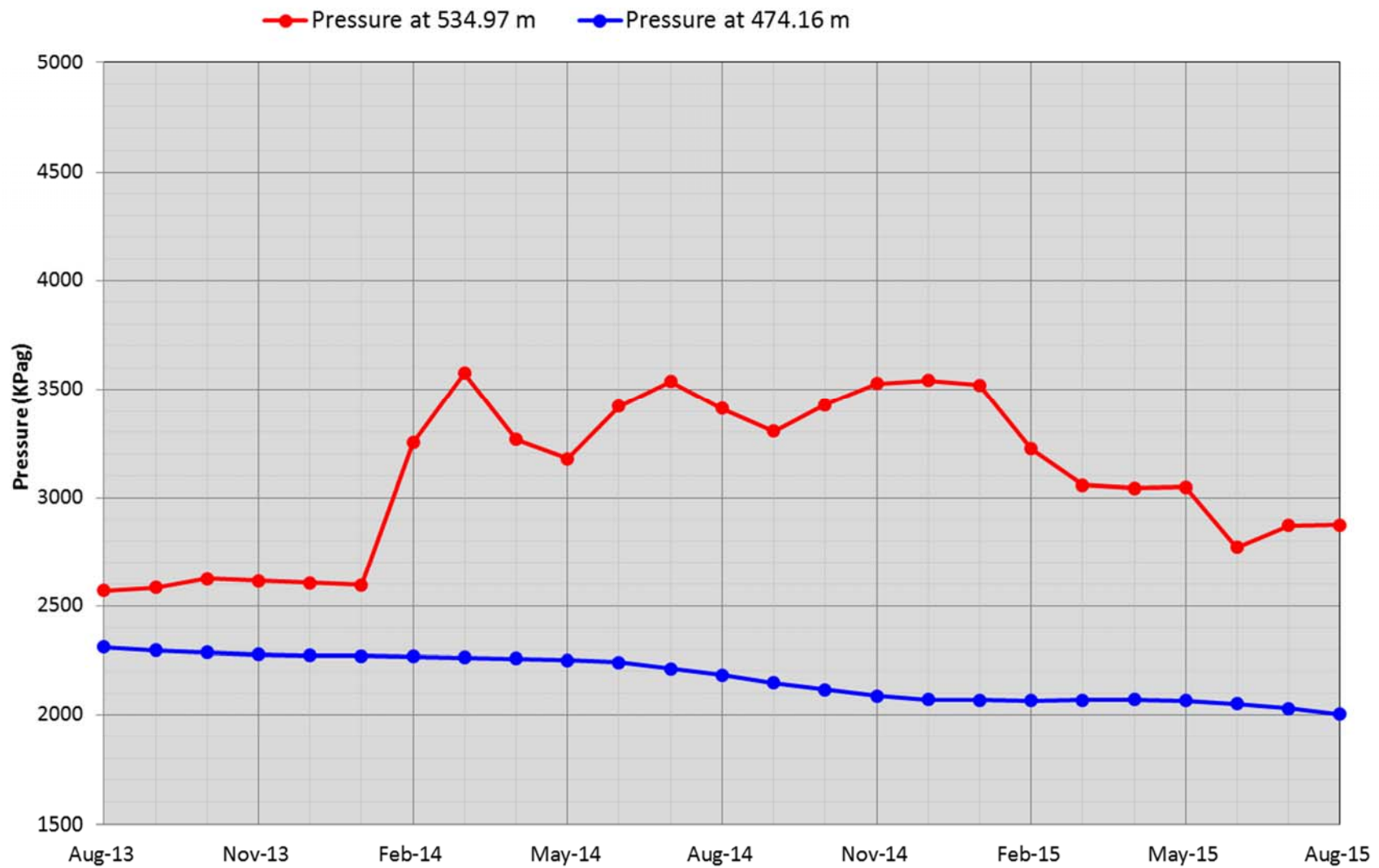
# G Pad Pressure

G 9-28 - 100/09-28-073-07W4



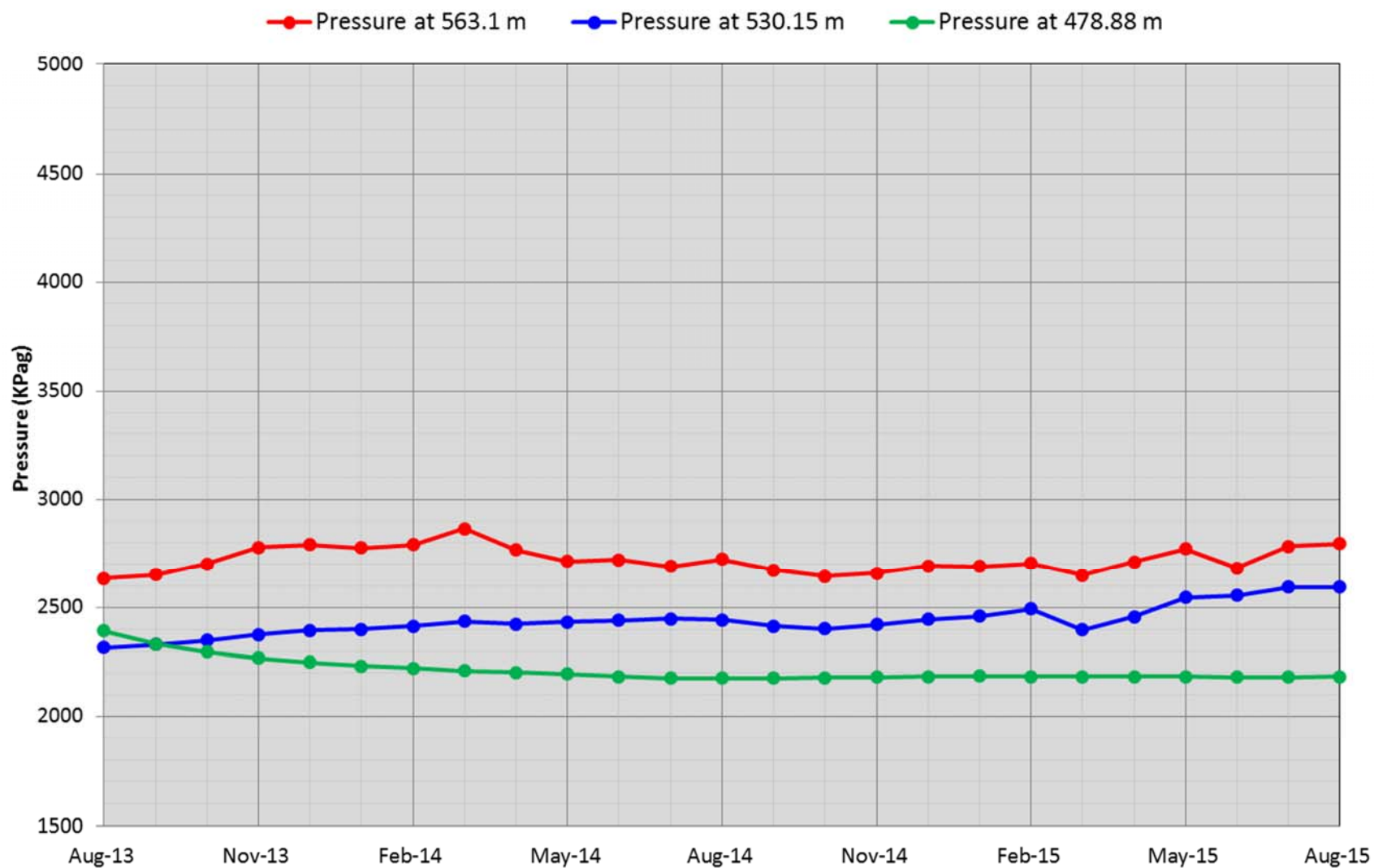
# G Pad Pressure

G 10-28 102/10-28-073-07W4

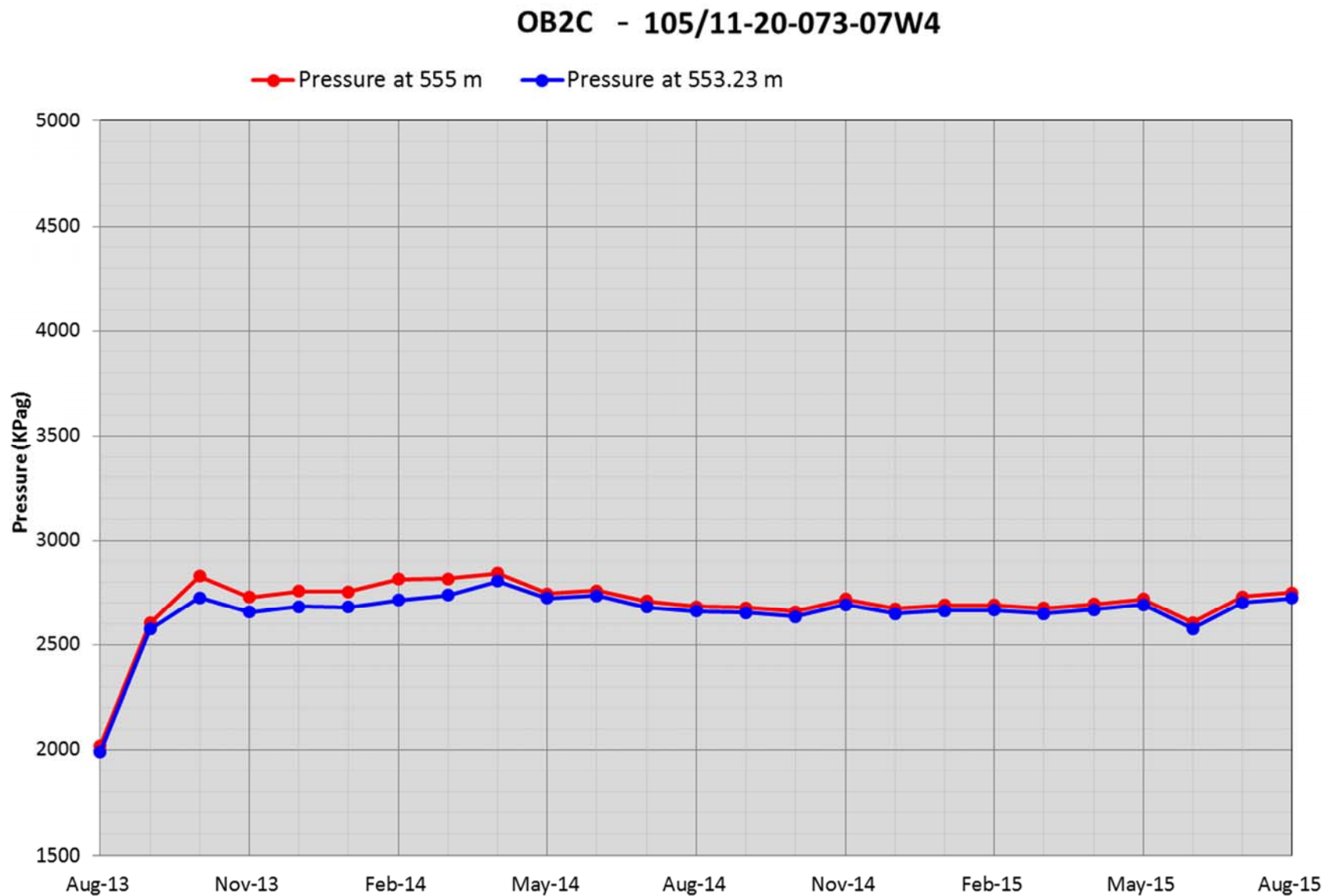


# A Pad Pressure

A 9-21 - 104/09-21-073-07W4



# D Pad Pressure



# Forward Looking Statements

Certain statements relating to Canadian Natural Resources Limited (the “Company”) in this document or documents incorporated herein by reference constitute forward-looking statements or information (collectively referred to herein as “forward-looking statements”) within the meaning of applicable securities legislation. Forward-looking statements can be identified by the words “believe”, “anticipate”, “expect”, “plan”, “estimate”, “target”, “continue”, “could”, “intend”, “may”, “potential”, “predict”, “should”, “will”, “objective”, “project”, “forecast”, “goal”, “guidance”, “outlook”, “effort”, “seeks”, “schedule”, “proposed” or expressions of a similar nature suggesting future outcome or statements regarding an outlook. Disclosure related to expected future commodity pricing, forecast or anticipated production volumes, royalties, operating costs, capital expenditures, income tax expenses, and other guidance provided throughout this presentation constitute forward-looking statements. Disclosure of plans relating to and expected results of existing and future developments, including but not limited to the Horizon Oil Sands operations and future expansion, Septimus, Primrose thermal projects, Pelican Lake water and polymer flood project, the Kirby Thermal Oil Sands Project, construction of the proposed Keystone XL Pipeline from Hardisty, Alberta to the US Gulf coast, the proposed Kinder Morgan Trans Mountain pipeline expansion from Edmonton, Alberta to Vancouver, British Columbia, the proposed Energy East pipeline from Hardisty to Eastern Canada, and the construction and future operations of the North West Redwater bitumen upgrader and refinery also constitute forward-looking statements. This forward-looking information is based on annual budgets and multi-year forecasts, and is reviewed and revised throughout the year as necessary in the context of targeted financial ratios, project returns, product pricing expectations and balance in project risk and time horizons. These statements are not guarantees of future performance and are subject to certain risks and the reader should not place undue reliance on these forward-looking statements as there can be no assurances that the plans, initiatives or expectations upon which they are based will occur.

In addition, statements relating to “reserves” are deemed to be forward-looking statements as they involve the implied assessment based on certain estimates and assumptions that the reserves described can be profitably produced in the future. There are numerous uncertainties inherent in estimating quantities of proved and proved plus probable crude oil and natural gas and natural gas liquids (NGLs”) reserves and in projecting future rates of production and the timing of development expenditures. The total amount or timing of actual future production may vary significantly from reserve and production estimates.

The forward-looking statements are based on current expectations, estimates and projections about the Company and the industry in which the Company operates, which speak only as of the date such statements were made or as of the date of the report or document in which they are contained, and are subject to known and unknown risks and uncertainties that could cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such risks and uncertainties include, among others: general economic and business conditions which will, among other things, impact demand for and market prices of the Company's products; volatility of and assumptions regarding crude oil and natural gas prices; fluctuations in currency and interest rates; assumptions on which the Company's current guidance is based; economic conditions in the countries and regions in which the Company conducts business; political uncertainty, including actions of or against terrorists, insurgent groups or other conflict including conflict between states; industry capacity; ability of the Company to implement its business strategy, including exploration and development activities; impact of competition; the Company's defense of lawsuits; availability and cost of seismic, drilling and other equipment; ability of the Company and its subsidiaries to complete capital programs; the Company's and its subsidiaries' ability to secure adequate transportation for its products; unexpected disruptions or delays in the resumption of the mining, extracting or upgrading of the Company's bitumen products; potential delays or changes in plans with respect to exploration or development projects or capital expenditures; ability of the Company to attract the necessary labour required to build its thermal and oil sands mining projects; operating hazards and other difficulties inherent in the exploration for and production and sale of crude oil and natural gas and in mining, extracting or upgrading the Company's bitumen products; availability and cost of financing; the Company's and its subsidiaries' success of exploration and development activities and their ability to replace and expand crude oil and natural gas reserves; timing and success of integrating the business and operations of acquired companies; production levels; imprecision of reserve estimates and estimates of recoverable quantities of crude oil, natural gas and NGLs not currently classified as proved; actions by governmental authorities; government regulations and the expenditures required to comply with them (especially safety and environmental laws and regulations and the impact of climate change initiatives on capital and operating costs); asset retirement obligations; the adequacy of the Company's provision for taxes; and other circumstances affecting revenues and expenses. The Company's operations have been, and in the future may be, affected by political developments and by federal, provincial and local laws and regulations such as restrictions on production, changes in taxes, royalties and other amounts payable to governments or governmental agencies, price or gathering rate controls and environmental protection regulations. Should one or more of these risks or uncertainties materialize, or should any of the Company's assumptions prove incorrect, actual results may vary in material respects from those projected in the forward-looking statements. The impact of any one factor on a particular forward-looking statement is not determinable with certainty as such factors are dependent upon other factors, and the Company's course of action would depend upon its assessment of the future considering all information then available. For additional information refer to the “Risks Factors” section of the AIF. Readers are cautioned that the foregoing list of factors is not exhaustive. Unpredictable or unknown factors not discussed in this report could also have material adverse effects on forward-looking statements.

Although the Company believes that the expectations conveyed by the forward-looking statements are reasonable based on information available to it on the date such forward-looking statements are made, no assurances can be given as to future results, levels of activity and achievements. All subsequent forward-looking statements, whether written or oral, attributable to the Company or persons acting on its behalf are expressly qualified in their entirety by these cautionary statements. Except as required by law, the Company assumes no obligation to update forward-looking statements, whether as a result of new information, future events or other factors, or the foregoing factors affecting this information, should circumstances or Management's estimates or opinions change.



# Reporting Disclosures

## Special Note Regarding Currency, Production and Reserves

In this document, all references to dollars refer to Canadian dollars unless otherwise stated. Reserves and production data are presented on a before royalties basis unless otherwise stated. In addition, reference is made to crude oil and natural gas in common units called barrel of oil equivalent ("BOE"). A BOE is derived by converting six thousand cubic feet of natural gas to one barrel of crude oil (6Mcf:1bbl). This conversion may be misleading, particularly if used in isolation, since the 6Mcf:1bbl ratio is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. In comparing the value ratio using current crude oil prices relative to natural gas prices, the 6Mcf:1bbl conversion ratio may be misleading as an indication of value.

This document, herein incorporated by reference, have been prepared in accordance with IFRS, as issued by the International Accounting Standards Board.

For the year ended December 31, 2014 the Company retained Independent Qualified Reserves Evaluators ("IQREs"), Sproule Associates Limited and Sproule International Limited (together as "Sproule") and GLJ Petroleum Consultants Ltd. ("GLJ"), to evaluate and review all of the Company's proved and proved plus probable reserves with an effective date of December 31, 2014 and a preparation date of February 2, 2015. Sproule evaluated the North America and International light and medium crude oil, primary heavy crude oil, Pelican Lake heavy crude oil, bitumen (thermal oil), natural gas and NGLs reserves. GLJ evaluated the Horizon SCO reserves. The evaluation and review was conducted in accordance with the standards contained in the Canadian Oil and Gas Evaluation Handbook ("COGE Handbook") and disclosed in accordance with National Instrument 51-101 – Standards of Disclosure for Oil and Gas Activities ("NI 51-101") requirements. Reserves disclosure is presented in accordance with Canadian reporting requirements using forecast prices and escalated costs.

The Company annually discloses net proved reserves and the standardized measure of discounted future net cash flows using 12-month average prices and current costs in accordance with United States Financial Accounting Standards Board Topic 932 "Extractive Activities - Oil and Gas" in the Company's Form 40-F filed with the SEC in the "Supplementary Oil and Gas Information" section of the Company's Annual Report.

## Resources Other Than Reserves

The contingent resources other than reserves ("resources") estimates provided in this presentation are internally evaluated by qualified reserves evaluators in accordance with the COGE Handbook as directed by NI 51-101. No independent third party evaluation or audit was completed. Resources provided are best estimates as of December 31, 2014. The resources are evaluated using deterministic methods which represent the expected outcome with no optimism or conservatism.

Resources, as per the COGE Handbook definition, are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but are not currently considered commercially viable due to one or more contingencies. There is no certainty that it will be commercially viable to produce any portion of these resources.

Due to the inherent differences in standards and requirements employed in the evaluation of reserves and contingent resources, the total volumes of reserves or resources are not to be considered indicative of total volumes that may actually be recovered and are provided for illustrative purposes only.

Crude oil, bitumen or natural gas initially-in-place volumes provided are discovered resources which include production, reserves, contingent resources and unrecoverable volumes.

gas initially-in-place volumes provided are discovered resources which include production, reserves, contingent resources and unrecoverable volumes.

## Special Note Regarding non-GAAP Financial Measures

This document includes references to financial measures commonly used in the crude oil and natural gas industry, such as adjusted net earnings from operations, cash flow from operations, cash production costs and net asset value. These financial measures are not defined by International Financial Reporting Standards ("IFRS") and therefore are referred to as non-GAAP measures. The non-GAAP measures used by the Company may not be comparable to similar measures presented by other companies. The Company uses these non-GAAP measures to evaluate its performance. The non-GAAP measures should not be considered an alternative to or more meaningful than net earnings, as determined in accordance with IFRS, as an indication of the Company's performance. The non-GAAP measures adjusted net earnings from operations and cash flow from operations are reconciled to net earnings, as determined in accordance with IFRS, in the "Net Earnings and Cash Flow from Operations" section of the Company's MD&A. The derivation of cash production costs is included in the "Operating Highlights – Oil Sands Mining and Upgrading" section of the Company's MD&A. The Company also presents certain non-GAAP financial ratios and their derivation in the "Liquidity and Capital Resources" section of the Company's MD&A.

Volumes shown are Company share before royalties unless otherwise stated.

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