

Cenovus Energy Inc.
Foster Creek In-situ Progress Report
Scheme 8623
2020 update

June 30, 2021



cenovus
ENERGY

Oil & gas and financial information

Oil & gas information

The estimates of reserves were prepared effective December 31, 2020. All estimates of reserves were prepared by independent qualified reserves evaluators, based on definitions contained in the Canadian Oil and Gas Evaluation Handbook and in accordance with National Instrument 51-101 *Standards of Disclosure for Oil and Gas Activities*. Additional information with respect to pricing and additional reserves and other oil and gas information, including the material risks and uncertainties associated with reserves estimates, is contained in our AIF and Form 40-F for the year ended December 31, 2020 available on SEDAR at www.sedar.com, EDGAR at www.sec.gov and on our website at cenovus.com.

Certain natural gas volumes have been converted to barrels of oil equivalent (BOE) on the basis of one barrel (bbl) to six thousand cubic feet (Mcf). BOE may be misleading, particularly if used in isolation. A conversion ratio of one bbl to six Mcf is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent value equivalency at the well head.

™ denotes a trademark of Cenovus Energy Inc.

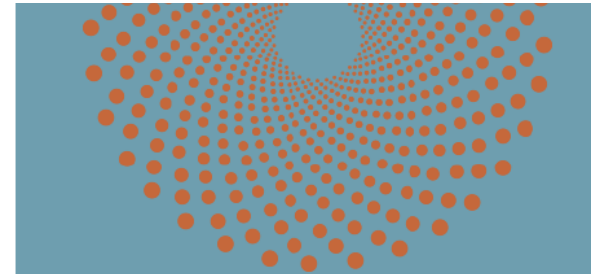
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Advisory

This presentation contains information in compliance with:

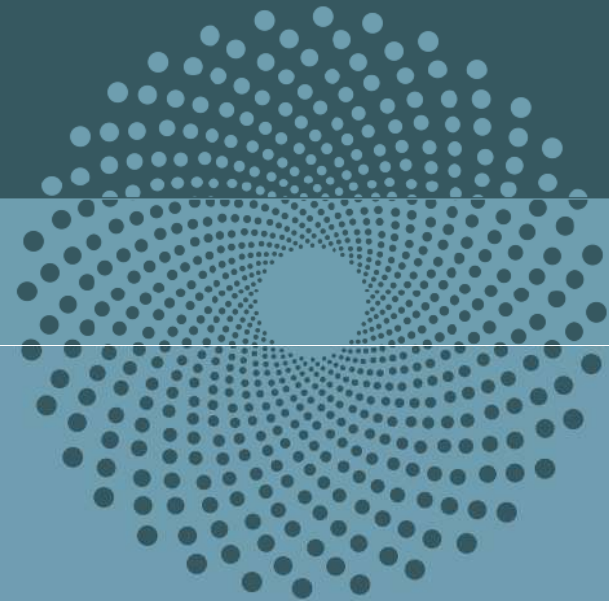
AER Directive 054 - Performance Presentations, Auditing, and Surveillance of In Situ Oil Sands Schemes

This document contains forward-looking information prepared and submitted pursuant to Alberta regulatory requirements and is not intended to be relied upon for the purpose of making investment decisions, including without limitation, to purchase, hold or sell any securities of Cenovus Energy Inc.



Subsection 4.1 1

Introduction



Cenovus at a glance

TSX, NYSE | CVE

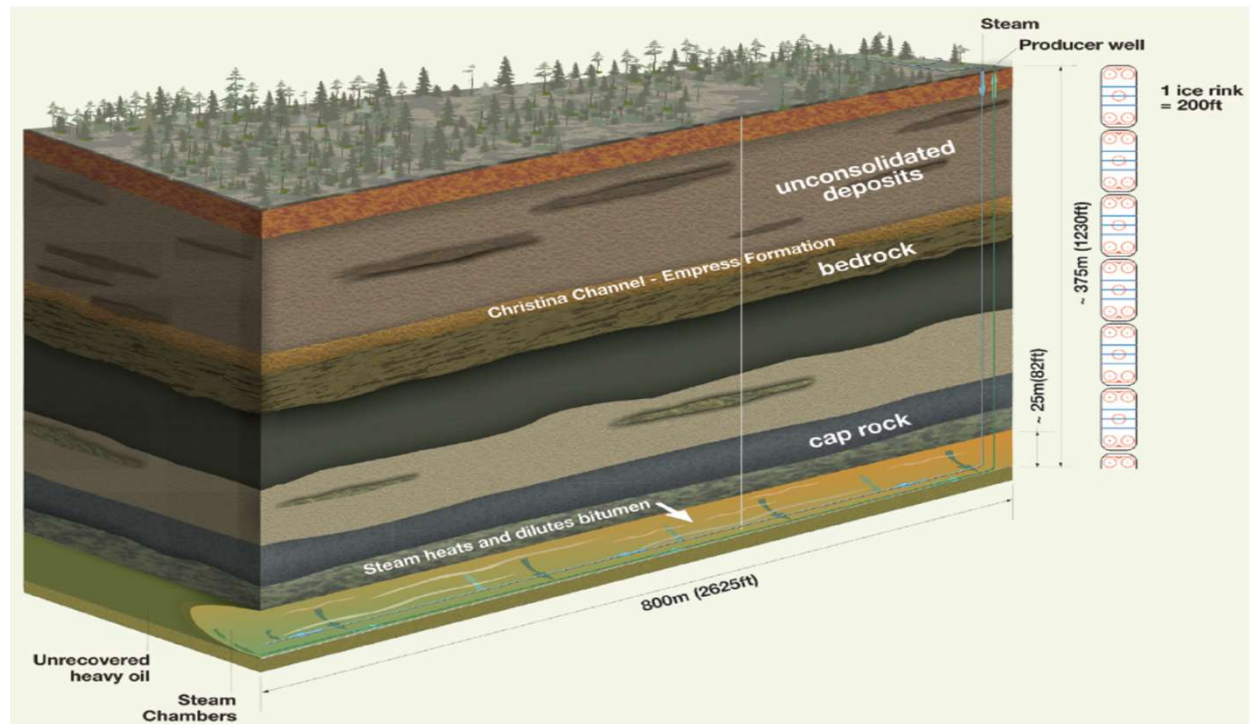
| | |
|---------------------------------|--------------------|
| 2021E production | 755 MBOE/d |
| <i>Oil Sands</i> | <i>555 Mbbls/d</i> |
| <i>Conventional</i> | <i>140 MBOE/d</i> |
| <i>Offshore</i> | <i>70 MBOE/d</i> |
| Upgrading and refining capacity | 660 Mbbls/d |
| 2020 proved & probable reserves | 8.4 BBOE |
| Reserves life index | 30+ years |

Note: Values are approximate. Forecasted production based on the midpoint of January 28, 2021 guidance. Refining capacity represents net capacity to Cenovus. See Advisory.

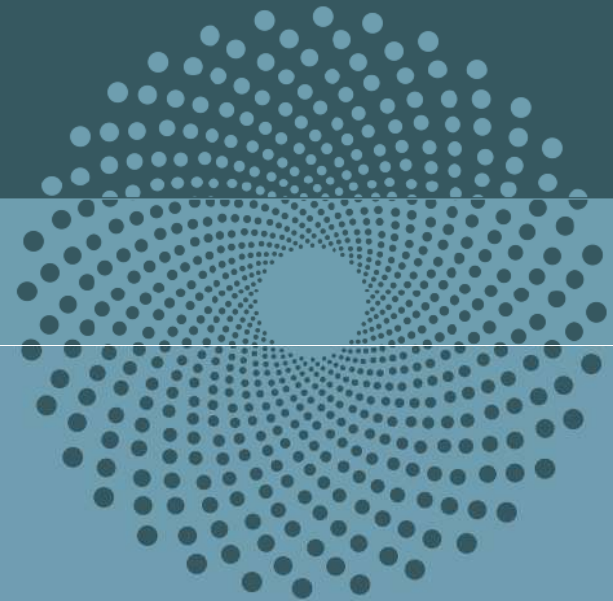


Recovery process

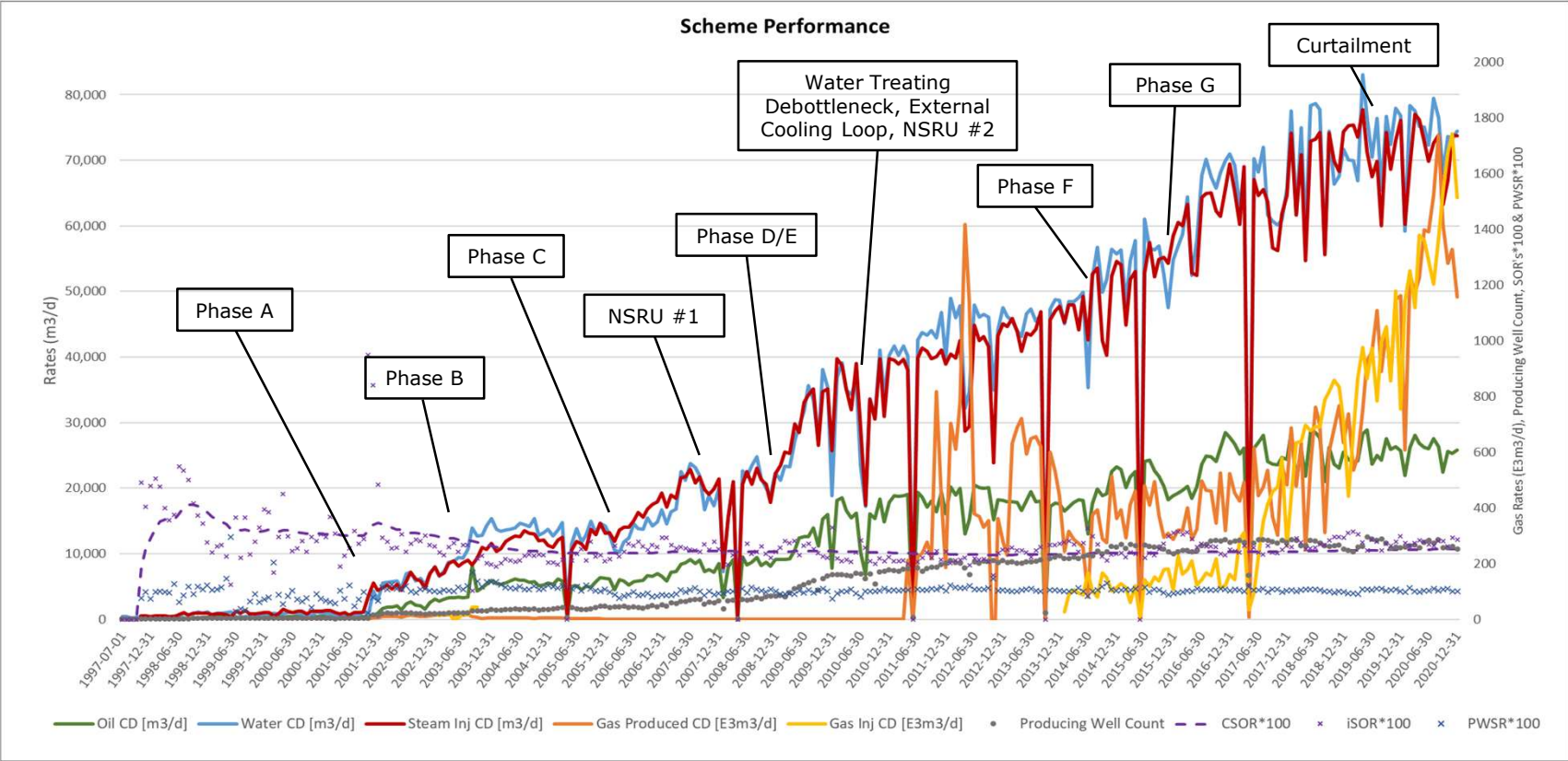
- The Foster Creek Thermal Project uses the dual-horizontal well SAGD (steam-assisted gravity drainage) process to recover oil from the McMurray formation
- Two horizontal wells one above the other approximately 5 m apart
- Steam is injected into the upper well where it heats the oil and allows it to drain into the lower well
- Oil and water emulsion pumped to the surface and treated



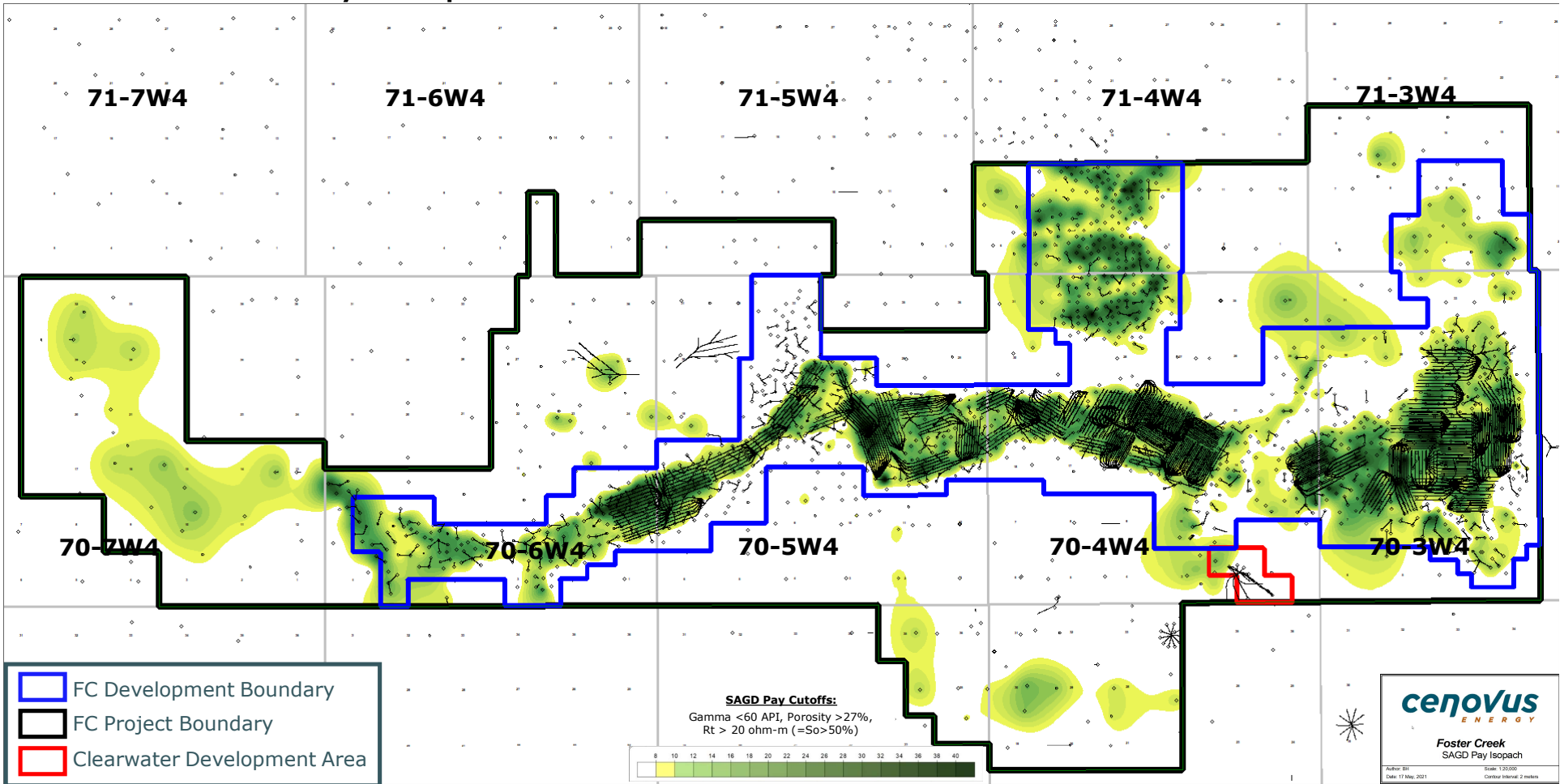
Subsection 4.2 2-7 Subsurface



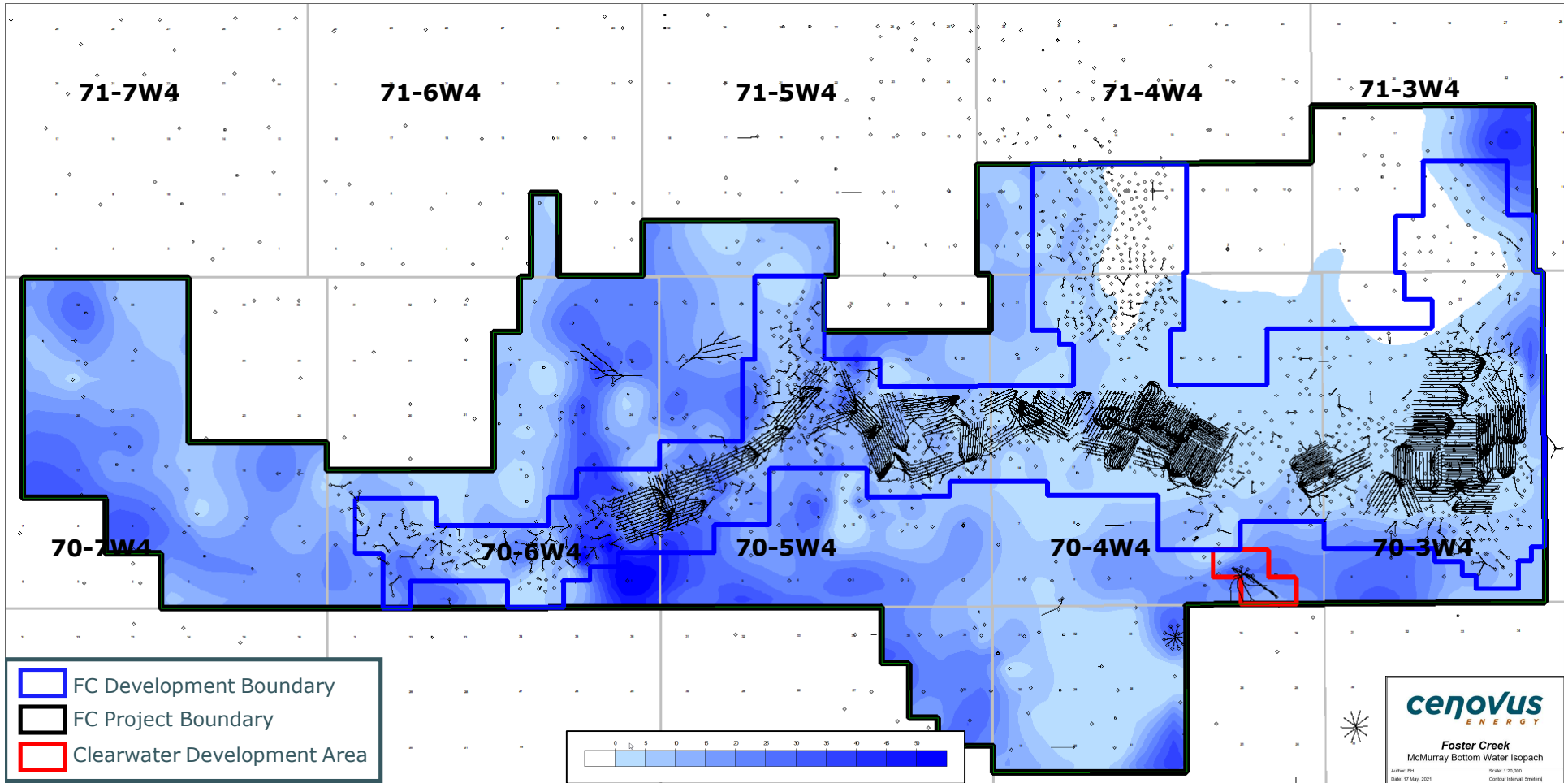
Performance: full historical



2020 SAGD Pay Isopach



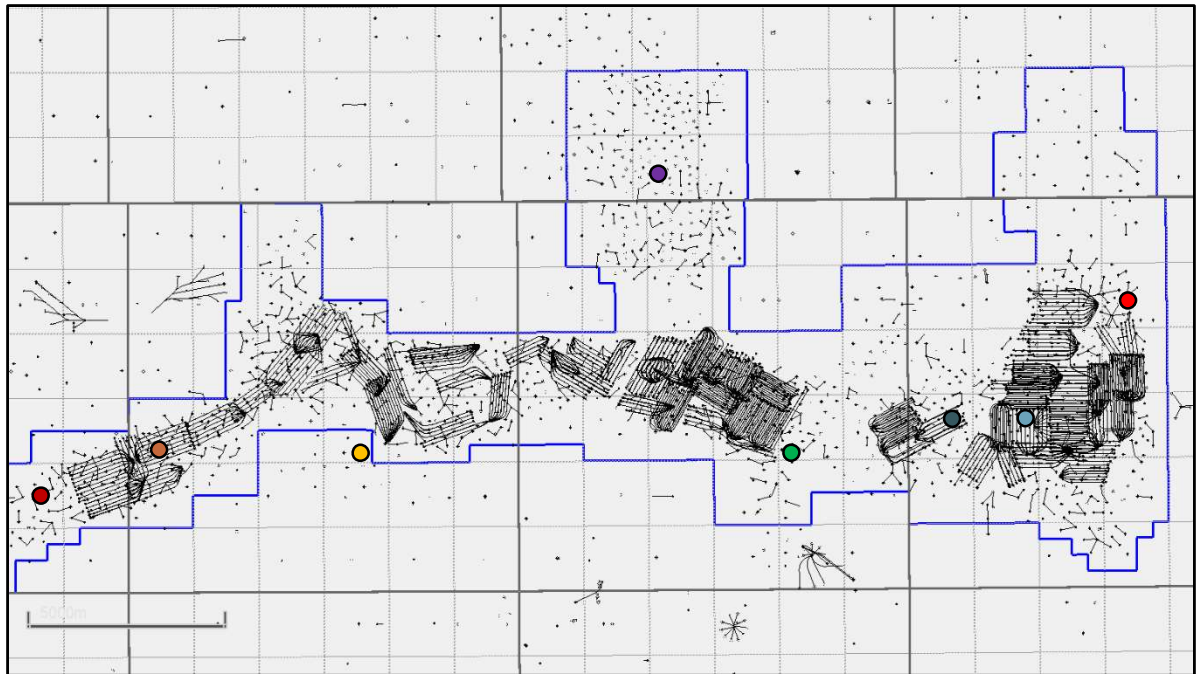
McMurray Bottom Water Isopach



Mini-frac and DFIT wells

- CVE recognizes that tensile and shear failure are two possible ways for integrity to be compromised
- Mini-frac or DFIT data give information about failure mechanisms and stress magnitudes

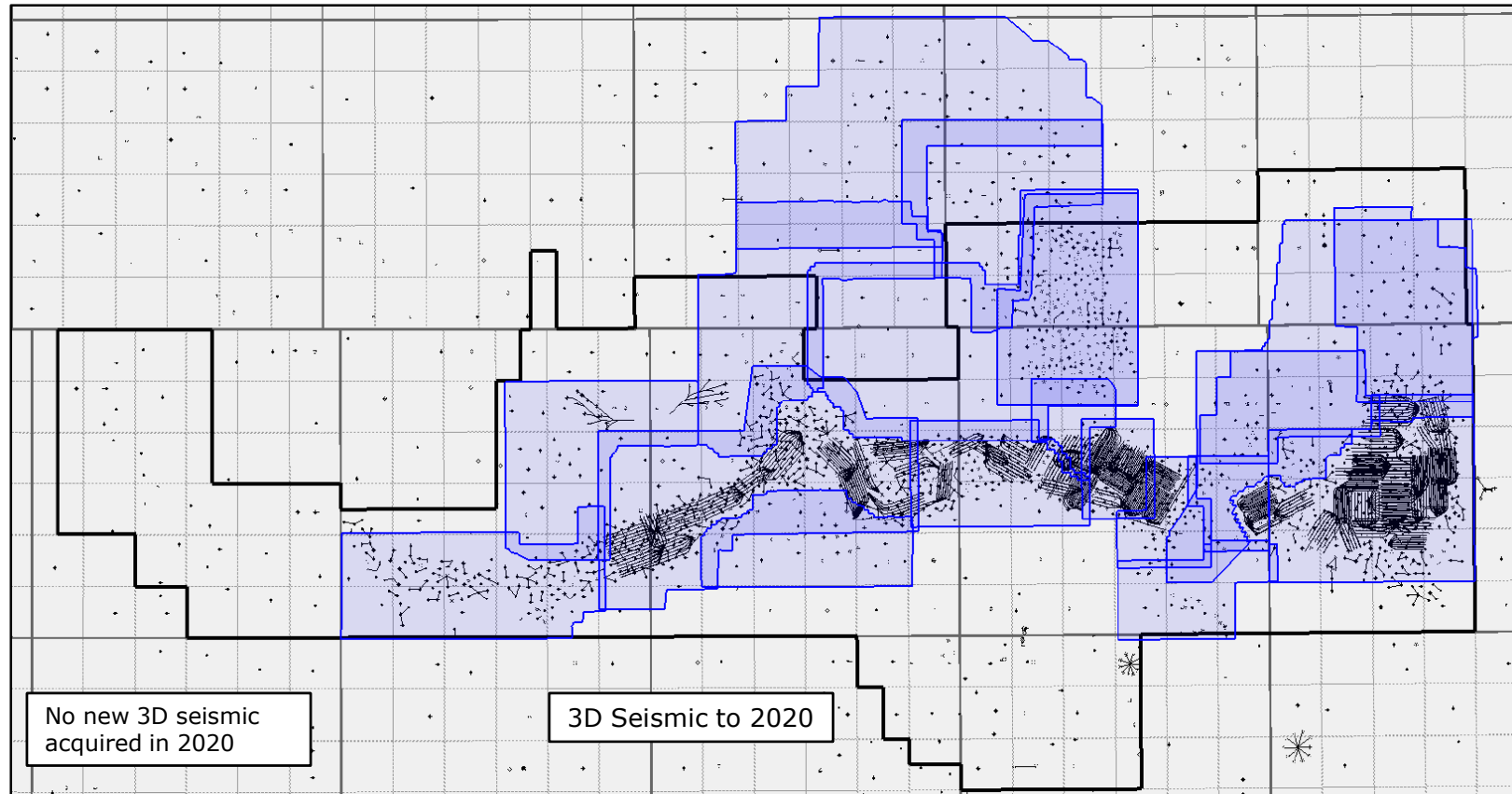
9-17-70-3 (2009)
2-15-70-5 (2010)
3-14-70-4 (2010)
6-27-70-3 (2011)
9-11-70-6 (2012)
5-4-71-4 (2017)
15-18-70-3 (2018)
3-18-70-5 (2020)



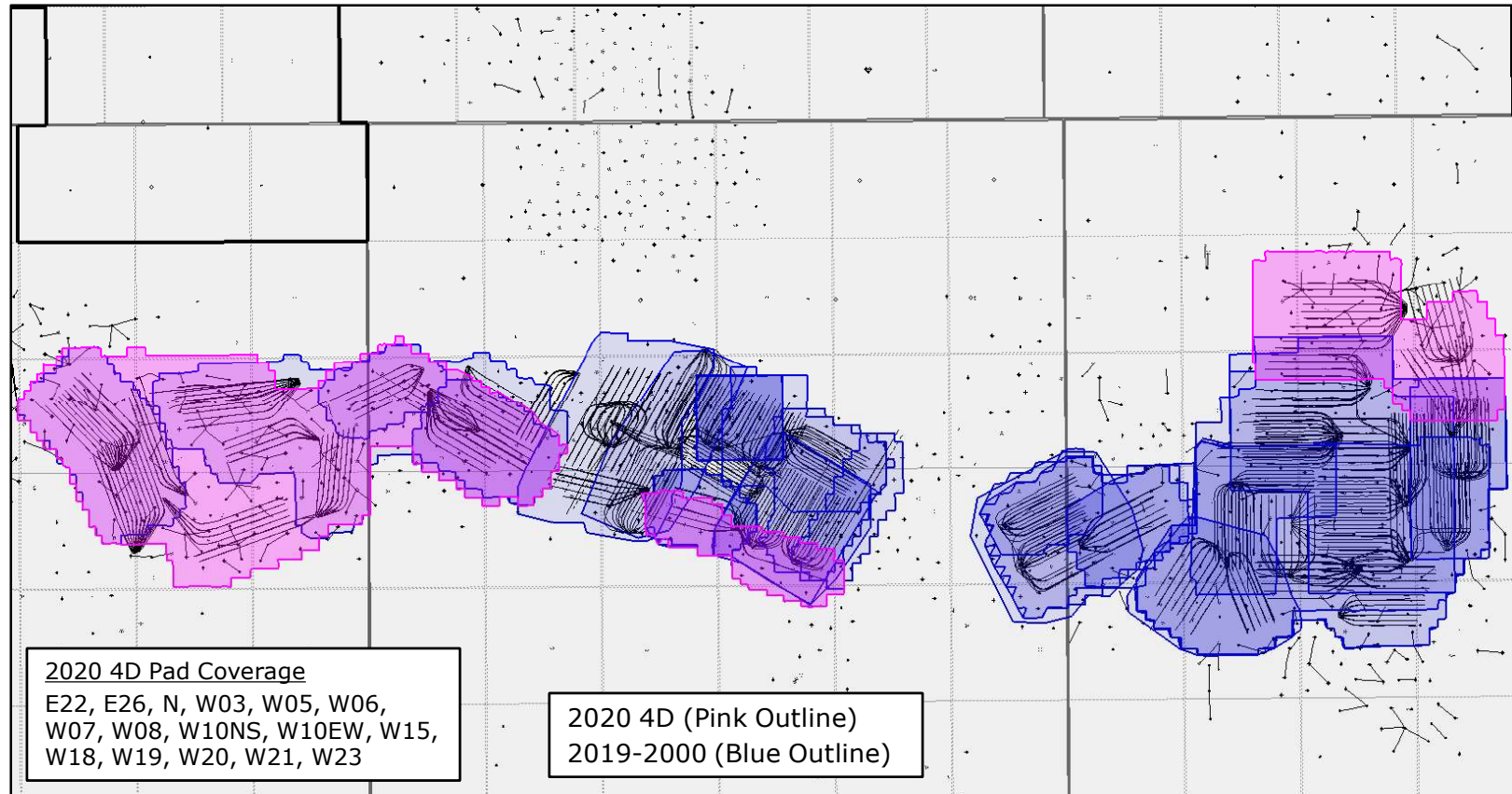
Summary of Mini-frac and DFIT test results

| Test date | UWI | Zone | TVD (m) | First Closure Gradient (kPag/m) | Post-steam |
|-----------|------------|--------------------------------|---------|---------------------------------|------------|
| 2009 | 9-17-70-3 | McMurray Sand | 500.30 | 12.49 | N |
| 2010 | 2-15-70-5 | Westgate Shale | 280.30 | 21.79 | N |
| 2010 | 2-15-70-5 | Grand Rapids Shale | 360.80 | 17.55 | N |
| 2010 | 2-15-70-5 | Clearwater Shale Caprock | 421.30 | 20.98 | N |
| 2010 | 2-15-70-5 | T31 (Clearwater Shale) Caprock | 437.50 | 22.24 | N |
| 2010 | 2-15-70-5 | Clearwater Sand | 447.30 | 14.09 | N |
| 2010 | 2-15-70-5 | Clearwater Sand | 455.80 | 14.88 | N |
| 2010 | 2-15-70-5 | Wabiskaw Shale (T11) Caprock | 477.80 | 18.13 | N |
| 2010 | 3-14-70-4 | Westgate Shale | 260.30 | 21.67 | N |
| 2010 | 3-14-70-4 | Grand Rapids Shale | 344.30 | 16.91 | N |
| 2010 | 3-14-70-4 | T31 (Clearwater Shale) Caprock | 416.50 | 21.25 | N |
| 2010 | 3-14-70-4 | Wabiskaw Shale (T11) Caprock | 447.30 | 20.00 | N |
| 2010 | 3-14-70-4 | McMurray Mudstone | 459.30 | 19.29 | N |
| 2011 | 6-27-70-3 | Westgate Shale | 270.30 | 21.05 | N |
| 2011 | 6-27-70-3 | Joli Fou Shale | 330.30 | 23.69 | N |
| 2011 | 6-27-70-3 | Grand Rapids Shale | 395.80 | 17.22 | N |
| 2011 | 6-27-70-3 | T31 (Clearwater Shale) Caprock | 470.00 | 21.08 | N |
| 2011 | 6-27-70-3 | T21 (Clearwater Shale) Caprock | 493.30 | 22.91 | N |
| 2011 | 6-27-70-3 | McMurray Sand | 532.30 | 12.56 | N |
| 2012 | 9-11-70-6 | Joli Fou Shale | 313.70 | 23.46 | N |
| 2012 | 9-11-70-6 | Clearwater Shale Caprock | 434.00 | 19.94 | N |
| 2012 | 9-11-70-6 | T31 (Clearwater Shale) Caprock | 449.50 | 20.41 | N |
| 2012 | 9-11-70-6 | T21 (Clearwater Shale) Caprock | 471.50 | 21.55 | N |
| 2012 | 9-11-70-6 | McMurray Sand | 525.50 | 11.73 | N |
| 2017 | 5-4-71-4 | T31 (Clearwater Shale) Caprock | 404.00 | 20.90 | N |
| 2018 | 15-18-70-3 | T31 (Clearwater Shale) Caprock | 419.25 | 19.56 | Y |
| 2020 | 3-18-70-5 | T31 (Clearwater Shale) Caprock | 425.32 | 21.96 | N |

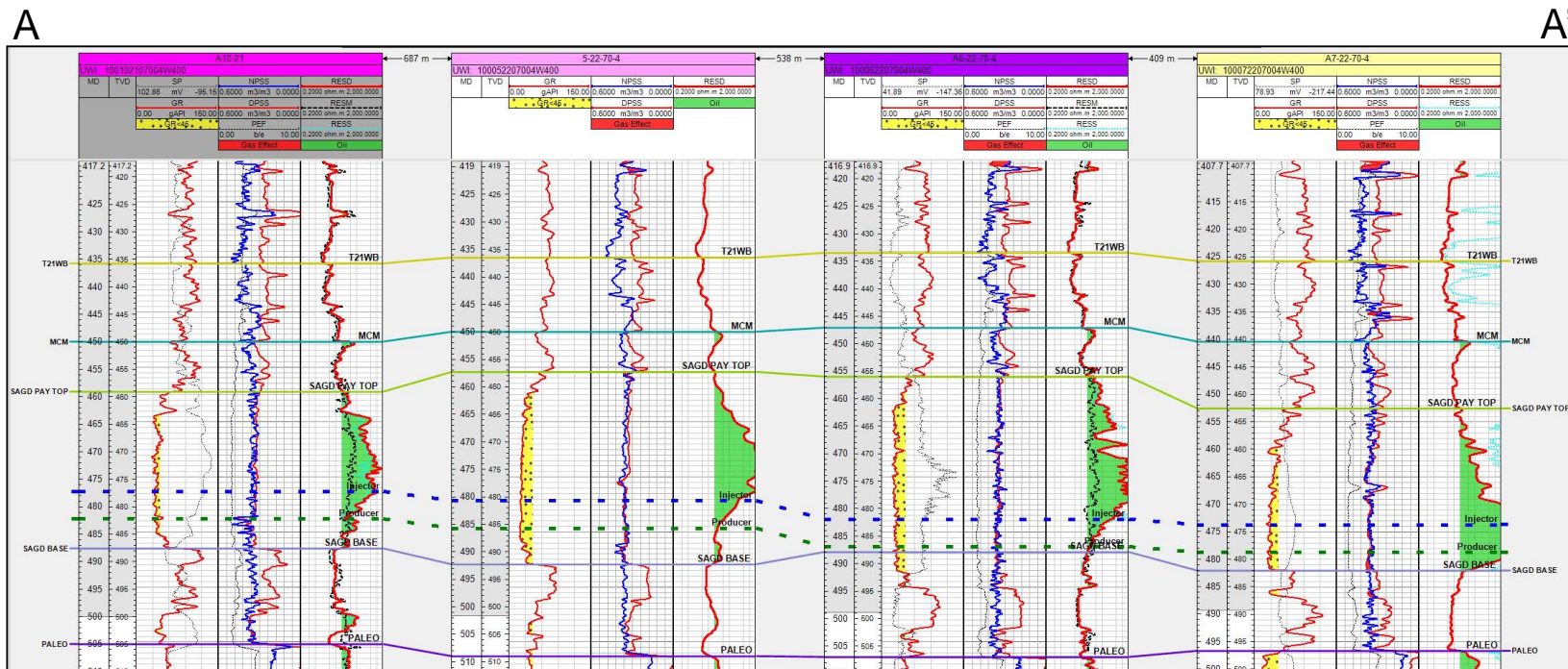
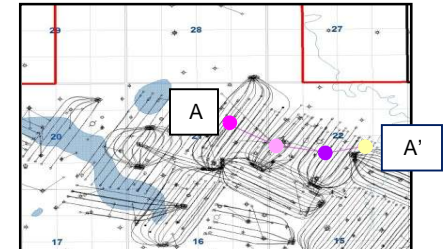
3D Seismic within Project Area



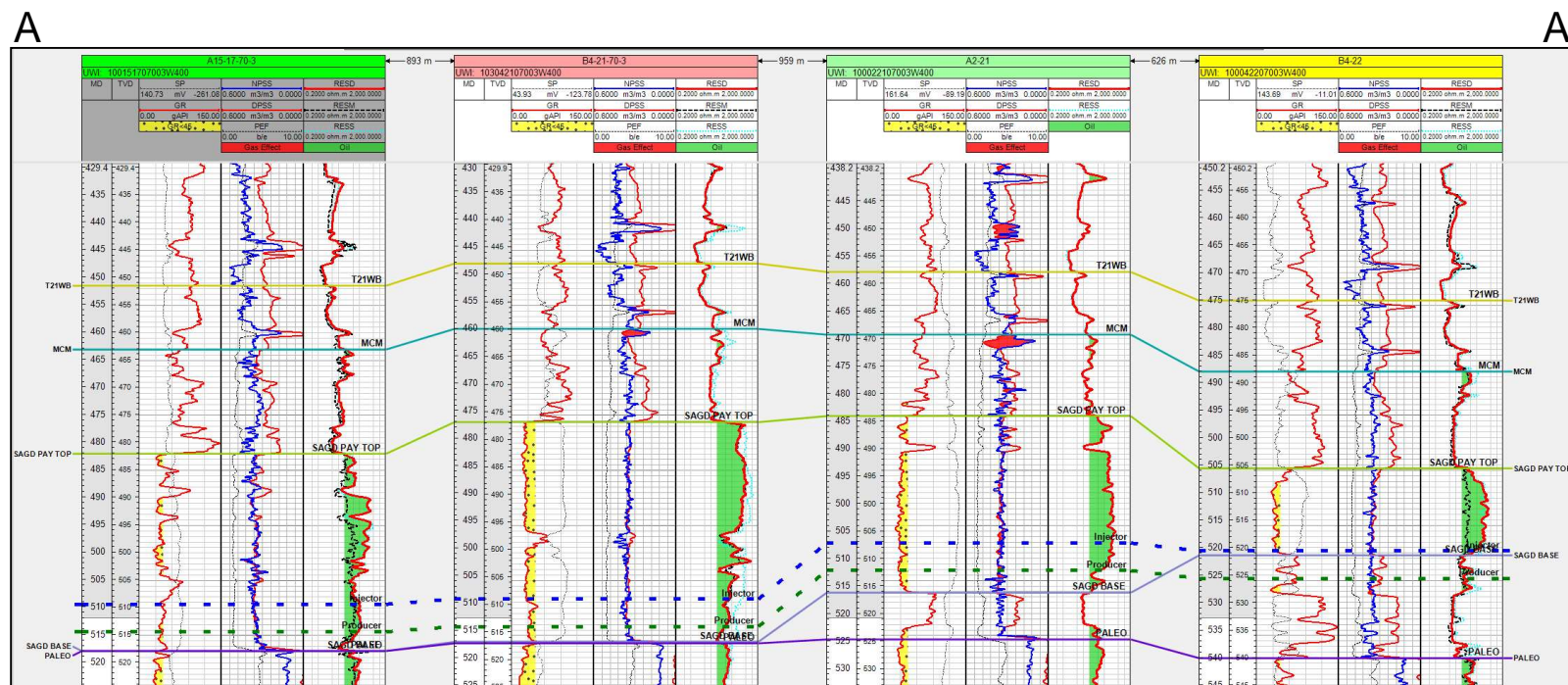
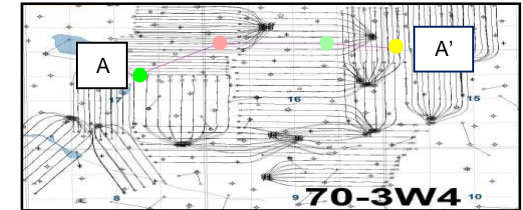
4D Seismic within Project Area



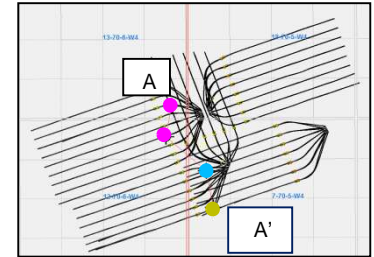
Representative structural cross-section over Central area



Representative structural cross-section over East area

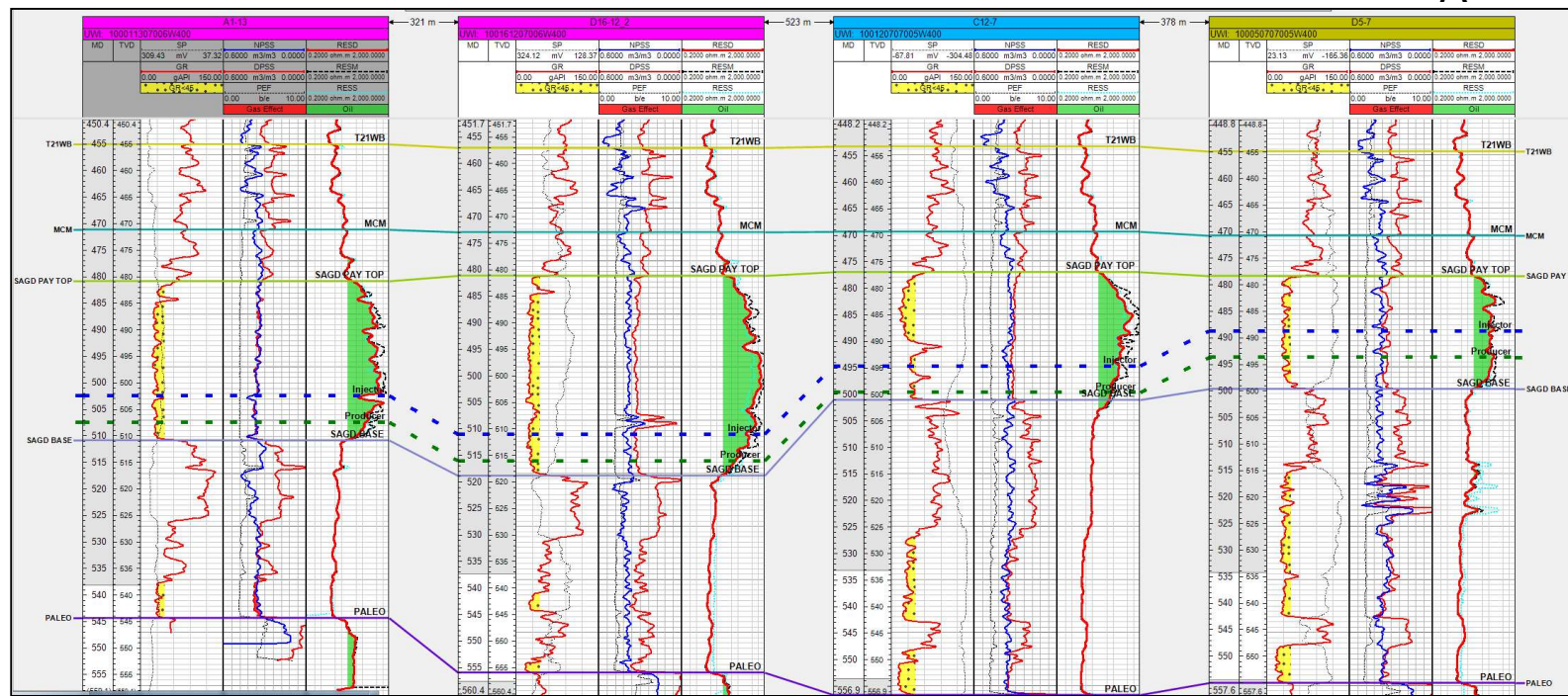


Representative structural cross-section over West area



A

A'



OBIP Volumes

- Project Area OBIP
 - 724 MMm³
- Development Area OBIP
 - 572 MMm³
- Combined Active Well Patterns OBIP
 - 219 MMm³
- Cumulative% Recovery OBIP
 - 48%

Reservoir properties

| Reservoir Characteristics | West Area | Central Area | East Area |
|-------------------------------------|-----------|--------------|-----------|
| Reservoir Depth (m subsea) | 180 - 225 | 180 - 225 | 180 - 225 |
| Average SAGD Pay Thickness (m) | Up to 30+ | Up to 30+ | Up to 30+ |
| Porosity (%) | 34% | 34% | 34% |
| Horizontal Permeability (D) | Up to 10 | Up to 10 | Up to 8 |
| Vertical Permeability (D) | Up to 8 | Up to 8 | Up to 6 |
| Oil Saturation (%) | ~85% | ~85% | ~85% |
| Water Saturation (%) | ~15% | ~15% | ~15% |
| Original Reservoir Pressure (kPa) | ~2700 | ~2700 | ~2700 |
| Original Reservoir Temperature (°C) | 12°C | 12°C | 12°C |

POIP & OBIP & percent recovery – Central

| Central Pad | Area (m2) | Height (m) | Average Permeability (D) | Porosity (%) | So (%) | POIP (Mm3) | OBIP (Mm3) | Cum Oil (Mm3) to Dec 31, 2020 | Recovery % POIP | Recovery % OBIP | Estimated Ultimate Recovery (m3) | Ultimate Recovery as % of POIP | Ultimate Recovery as % of OBIP |
|----------------------|-------------------|------------|--------------------------|--------------|--------|----------------|----------------|-------------------------------|-----------------|-----------------|----------------------------------|--------------------------------|--------------------------------|
| A PAD | 531,100 | 27 | 5.5 | 33% | 82% | 3,806 | 4,057 | 3,665 | 96% | 90% | 3,668 | 96% | 90% |
| B_L PAD | 569,545 | 24 | 5.5 | 34% | 79% | 3,723 | 3,890 | 2,732 | 73% | 70% | 2,739 | 74% | 70% |
| C PAD | 541,344 | 29 | 5.5 | 34% | 82% | 4,422 | 4,782 | 4,497 | 102% | 94% | 4,532 | 102% | 95% |
| D PAD | 676,265 | 27 | 5.5 | 31% | 81% | 4,562 | 4,870 | 4,581 | 100% | 94% | 4,581 | 100% | 94% |
| E_K PAD | 576,442 | 23 | 5.5 | 33% | 78% | 3,464 | 3,786 | 3,086 | 89% | 82% | 3,086 | 89% | 82% |
| EXP_M PAD | 583,159 | 24 | 5.5 | 33% | 81% | 3,788 | 4,204 | 2,693 | 71% | 64% | 2,717 | 72% | 65% |
| F PAD | 817,054 | 23 | 5.5 | 33% | 79% | 5,267 | 5,717 | 3,791 | 72% | 66% | 4,207 | 80% | 74% |
| G PAD | 619,866 | 23 | 5.5 | 32% | 82% | 4,058 | 4,513 | 3,034 | 75% | 67% | 3,391 | 84% | 75% |
| H PAD | 121,557 | 18 | 5.5 | 33% | 79% | 563 | 672 | 218 | 39% | 33% | 249 | 44% | 37% |
| J PAD | 569,736 | 25 | 5.5 | 31% | 77% | 3,383 | 4,399 | 1,993 | 59% | 45% | 2,220 | 66% | 50% |
| N PAD | 423,299 | 18 | 5.5 | 33% | 83% | 2,044 | 2,484 | 408 | 20% | 16% | 1,334 | 65% | 54% |
| W01 PAD | 673,003 | 23 | 5.5 | 33% | 80% | 4,080 | 4,357 | 2,405 | 59% | 55% | 2,598 | 64% | 60% |
| W02 PAD | 376,851 | 18 | 5.5 | 32% | 86% | 1,828 | 1,988 | 735 | 40% | 37% | 910 | 50% | 46% |
| Total Central | 7,079,220 | | | | | 44,987 | 49,717 | 33,839 | 75% | 68% | 36,233 | 81% | 73% |
| Total FC | 29,474,057 | | | | | 187,974 | 218,996 | 104,148 | 55% | 48% | 134,870 | 72% | 62% |

To Dec 31, 2020

Note – C Pad and D Pad indicate recovery of 100% or greater, likely as the POIP may have been underestimated.

POIP & OBIP & percent recovery – East

| East Pad | Area (m2) | Height (m) | Average Permeability (D) | Porosity (%) | So (%) | POIP (Mm3) | OBIP (Mm3) | Cum Oil (Mm3) to Dec 31, 2020 | Recovery % POIP | Recovery % OBIP | Estimated Ultimate Recovery (m3) | Ultimate Recovery as % of POIP | Ultimate Recovery as % of OBIP |
|-------------------|-------------------|------------|--------------------------|--------------|--------|----------------|----------------|-------------------------------|-----------------|-----------------|----------------------------------|--------------------------------|--------------------------------|
| E02 PAD | 400,709 | 31 | 5.5 | 33% | 72% | 2,917 | 3,479 | 1,826 | 63% | 52% | 1,923 | 66% | 55% |
| E03 PAD | 459,410 | 34 | 5.5 | 32% | 73% | 3,692 | 5,063 | 1,792 | 49% | 35% | 2,151 | 58% | 42% |
| E04 PAD | 522,570 | 29 | 5.5 | 32% | 76% | 3,755 | 5,208 | 1,400 | 37% | 27% | 1,625 | 43% | 31% |
| E07 PAD | 532,122 | 16 | 5.5 | 28% | 72% | 1,662 | 2,965 | 348 | 21% | 12% | 592 | 36% | 20% |
| E08 PAD | 648,671 | 23 | 5.5 | 31% | 78% | 3,670 | 4,480 | 1,774 | 48% | 40% | 2,039 | 56% | 46% |
| E10 PAD | 431,584 | 19 | 5.5 | 30% | 73% | 1,832 | 3,284 | 1,084 | 59% | 33% | 1,183 | 65% | 36% |
| E11 PAD | 715,946 | 30 | 5.5 | 32% | 75% | 5,200 | 6,901 | 3,495 | 67% | 51% | 3,660 | 70% | 53% |
| E12 PAD | 887,907 | 32 | 5.5 | 34% | 79% | 7,612 | 8,776 | 5,624 | 74% | 64% | 6,002 | 79% | 68% |
| E14 PAD | 432,151 | 22 | 5.5 | 33% | 81% | 2,459 | 2,910 | 1,213 | 49% | 42% | 1,477 | 60% | 51% |
| E15 PAD | 1,091,646 | 26 | 5.5 | 33% | 81% | 7,154 | 7,955 | 4,591 | 64% | 58% | 4,955 | 69% | 62% |
| E16 PAD | 540,428 | 25 | 5.5 | 34% | 79% | 3,632 | 3,980 | 2,941 | 81% | 74% | 3,046 | 84% | 77% |
| E19 PAD | 1,136,540 | 25 | 5.5 | 33% | 80% | 7,347 | 8,421 | 5,816 | 79% | 69% | 6,030 | 82% | 72% |
| E20 PAD | 782,583 | 27 | 5.5 | 33% | 82% | 5,848 | 6,378 | 4,849 | 83% | 76% | 5,049 | 86% | 79% |
| E21 PAD | 792,643 | 18 | 5.5 | 32% | 80% | 4,118 | 5,128 | 2,372 | 58% | 46% | 2,677 | 65% | 52% |
| E22 PAD | 572,024 | 19 | 5.5 | 34% | 82% | 2,981 | 3,710 | 827 | 28% | 22% | 2,305 | 77% | 62% |
| E24 PAD | 924,102 | 27 | 5.5 | 34% | 84% | 7,156 | 7,889 | 4,897 | 68% | 62% | 5,412 | 76% | 69% |
| E25 PAD | 865,015 | 23 | 5.5 | 32% | 81% | 5,019 | 6,034 | 2,948 | 59% | 49% | 3,131 | 62% | 52% |
| E26 PAD | 1,197,131 | 19 | 5.5 | 32% | 79% | 5,711 | 6,914 | 1,742 | 31% | 25% | 3,968 | 69% | 57% |
| E42 PAD | 348,633 | 18 | 5.5 | 31% | 77% | 1,477 | 2,049 | 908 | 61% | 44% | 944 | 64% | 46% |
| Total East | 13,281,815 | | | | | 83,242 | 101,524 | 50,448 | 61% | 50% | 58,171 | 70% | 57% |
| Total FC | 29,474,057 | | | | | 187,974 | 218,996 | 104,148 | 55% | 48% | 134,870 | 72% | 62% |

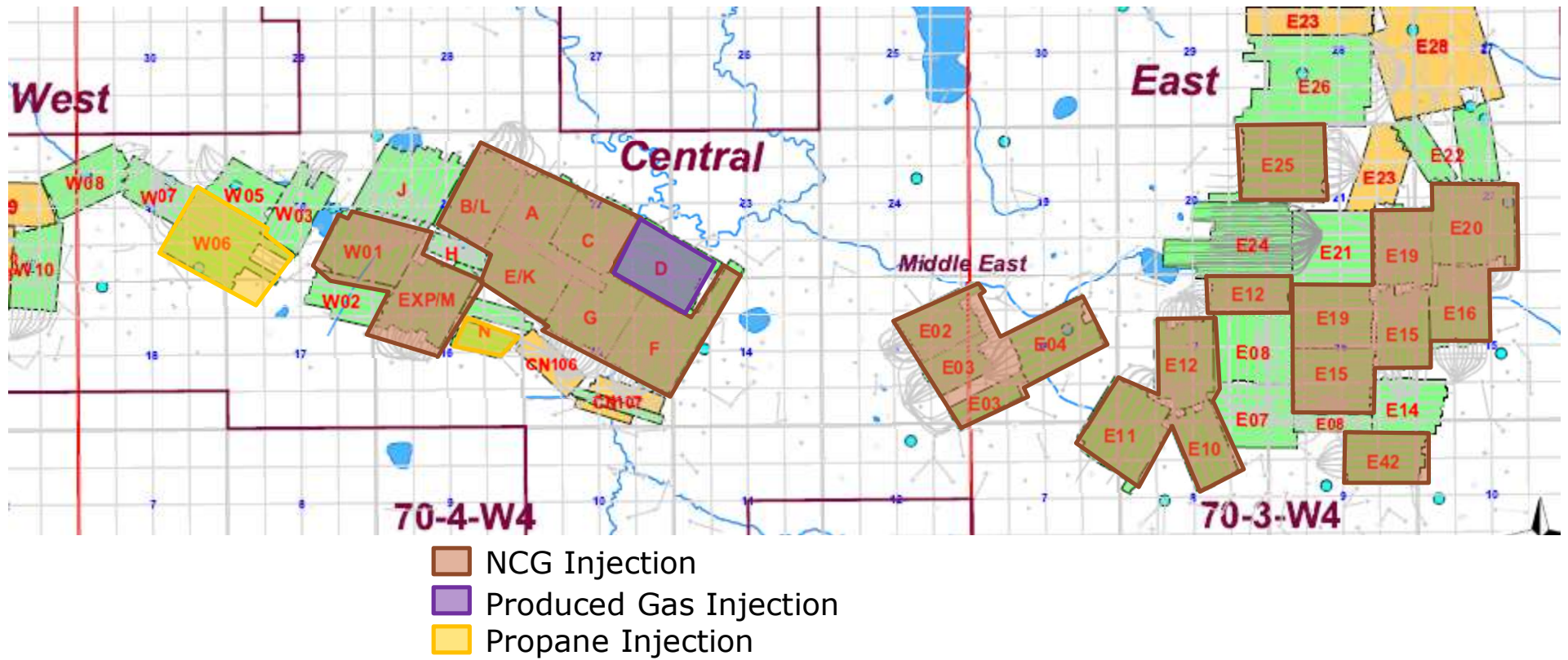
To Dec 31, 2020

POIP & OBIP & percent recovery – West

| West Pad | Area (m2) | Height (m) | Average Permeability (D) | Porosity (%) | So (%) | POIP (Mm3) | OBIP (Mm3) | Cum Oil (Mm3) to Dec 31, 2020 | Recovery % POIP | Recovery % OBIP | Estimated Ultimate Recovery (m3) | Ultimate Recovery as % of POIP | Ultimate Recovery as % of OBIP |
|-------------------|-------------------|------------|--------------------------|--------------|--------|----------------|----------------|-------------------------------|-----------------|-----------------|----------------------------------|--------------------------------|--------------------------------|
| W03 PAD | 425,325 | 21 | 5.5 | 31% | 75% | 2,097 | 2,509 | 724 | 35% | 29% | 913 | 44% | 36% |
| W05 PAD | 341,146 | 22 | 5.5 | 30% | 76% | 1,669 | 2,563 | 353 | 21% | 14% | 398 | 24% | 16% |
| W06 PAD | 762,639 | 23 | 5.5 | 30% | 82% | 4,442 | 4,878 | 1,479 | 33% | 30% | 2,202 | 50% | 45% |
| W07 PAD | 337,372 | 24 | 5.5 | 33% | 78% | 2,081 | 2,610 | 849 | 41% | 33% | 1,345 | 65% | 52% |
| W08 PAD | 437,329 | 25 | 5.5 | 32% | 80% | 2,775 | 3,080 | 1,462 | 53% | 47% | 1,941 | 70% | 63% |
| W10 PAD | 464,355 | 23 | 5.5 | 31% | 82% | 2,753 | 3,189 | 1,609 | 58% | 50% | 2,599 | 94% | 81% |
| W15 PAD | 379,950 | 21 | 5.5 | 31% | 86% | 2,106 | 2,510 | 916 | 43% | 36% | 1,444 | 69% | 58% |
| W18 PAD | 691,116 | 24 | 5.5 | 31% | 88% | 4,582 | 5,483 | 2,926 | 64% | 53% | 3,765 | 82% | 69% |
| W19 PAD | 809,984 | 29 | 5.5 | 33% | 81% | 6,176 | 7,074 | 3,156 | 51% | 45% | 4,809 | 78% | 68% |
| W20 PAD | 426,744 | 29 | 5.5 | 33% | 80% | 3,212 | 3,590 | 1,055 | 33% | 29% | 1,842 | 57% | 51% |
| W21 PAD | 704,560 | 23 | 5.5 | 33% | 84% | 4,371 | 5,196 | 946 | 22% | 18% | 2,452 | 56% | 47% |
| W23 PAD | 789,579 | 26 | 5.5 | 32% | 84% | 5,523 | 6,090 | 3,375 | 61% | 55% | 4,528 | 82% | 74% |
| W27 PAD | 566,098 | 20 | 5.5 | 33% | 81% | 3,052 | 3,392 | 423 | 14% | 12% | 2,139 | 70% | 63% |
| W30 PAD | 816,182 | 18 | 5.5 | 32% | 84% | 3,921 | 4,270 | 536 | 14% | 13% | 2,777 | 71% | 65% |
| W34 PAD | 1,160,643 | 31 | 5.5 | 34% | 90% | 10,984 | 11,321 | 52 | 0.5% | 0.5% | 7,312 | 67% | 65% |
| Total West | 9,113,023 | | | | | 59,745 | 67,755 | 19,862 | 33% | 29% | 40,466 | 68% | 60% |
| Total FC | 29,474,057 | | | | | 187,974 | 218,996 | 104,148 | 55% | 48% | 134,870 | 72% | 62% |

To Dec 31, 2020

Map of co-injection wells



Injected fluids

Non-condensable gas:

- Fuel gas up to 36% mol fraction during co-injection*; 100% gas mol fraction during blowdown
- NCG currently injected on A, C, F, G, M_Exp, B/L, E/K, E02, E03, E04, E10, E11, E12, E15, E16, E19, E20, E25, E42, and W01
- No measurable impacts observed to the aquifer

Produced gas Injection

- PG is currently injected on D Pad at 100% gas mol fraction

Stimulation treatments

- Wells are occasionally treated with HCl and/or Thermosolv to minimize skin

Solvent

- Have used solvent in start-up work-overs and have approval to use this as a potential start-up process
- N pad propane (3 to 10 wt%) SAP pilot
- W06 pad propane (60 – 80 wt%) co-injection pilot

*Based on current approval of 100 t/d min steam and 75 e³m³/d max gas injection per injector well on pad average basis during co-injection.

Injection Strategy and Impacts

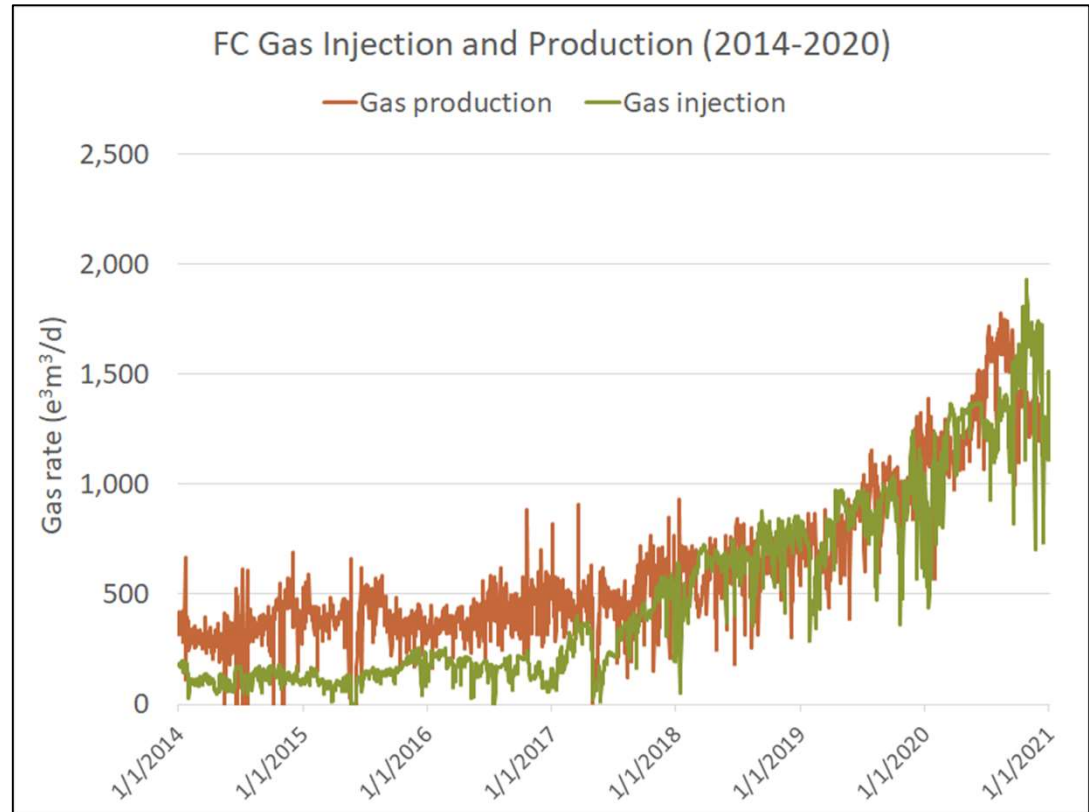
NCG Injection commencement is based on:

- Pads with high RF
- Pads with high SOR/declining oil rates

Steam cuts are typically made in 25% increments.

Impact of co-injection:

- Trials underway to optimize late life strategy and reduce gas production.
- Based on data to date, Cenovus does not expect material impact to ultimate recovery due to co-injection.



Co-injection Impact to Wellbore Integrity

To date, no impacts of co-injection on wellbore integrity and aquifer have been seen:

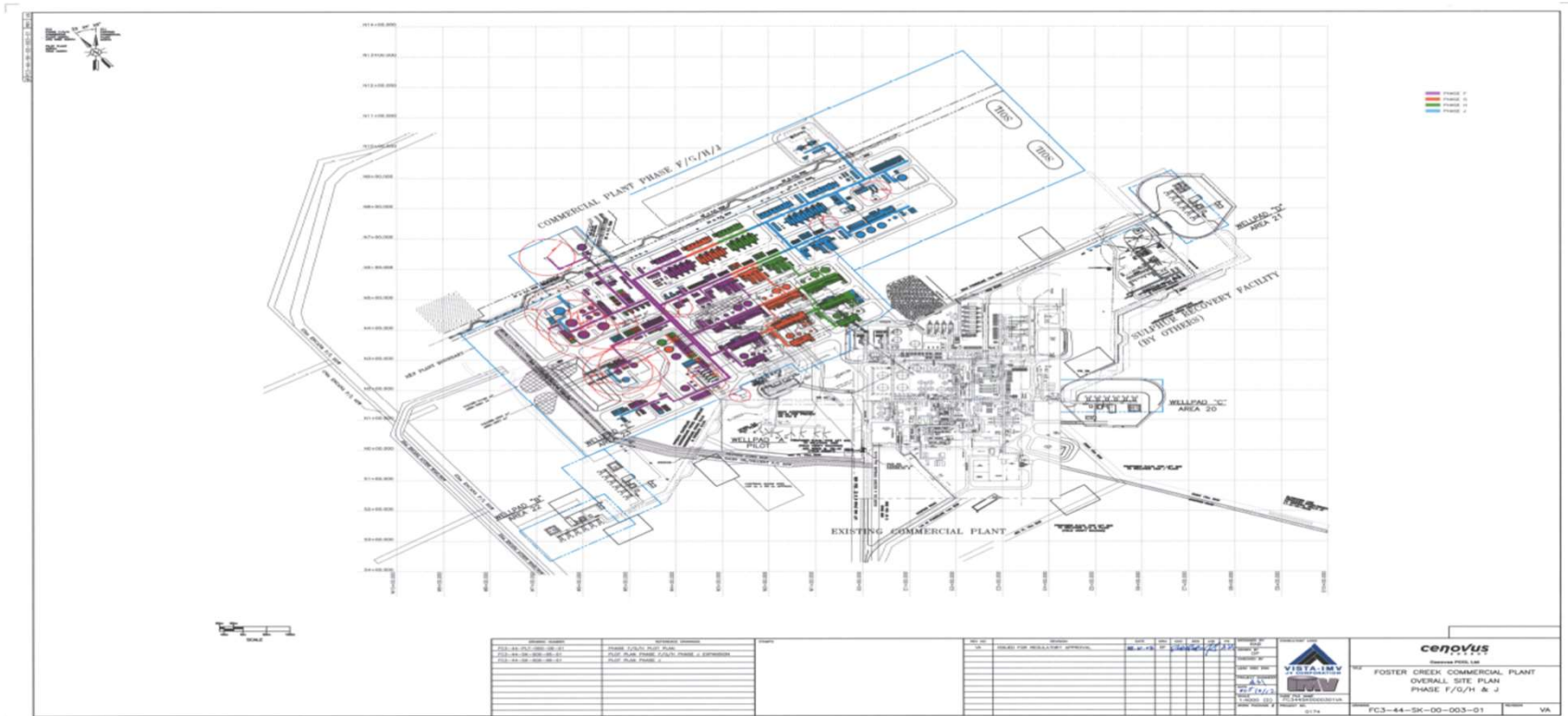
- Well Integrity Management Program (WIM, refer to slide 39) supports the monitoring of co-injection wells and manages the mitigation of near surface casing corrosion.
- Corrosion rate of the co-injection wells are evaluated with casing age and operating condition.

Subsection 4.3 8

Surface



Foster Creek F/H Plot Plan



Brackish Source Wells

Source LGR Wells:

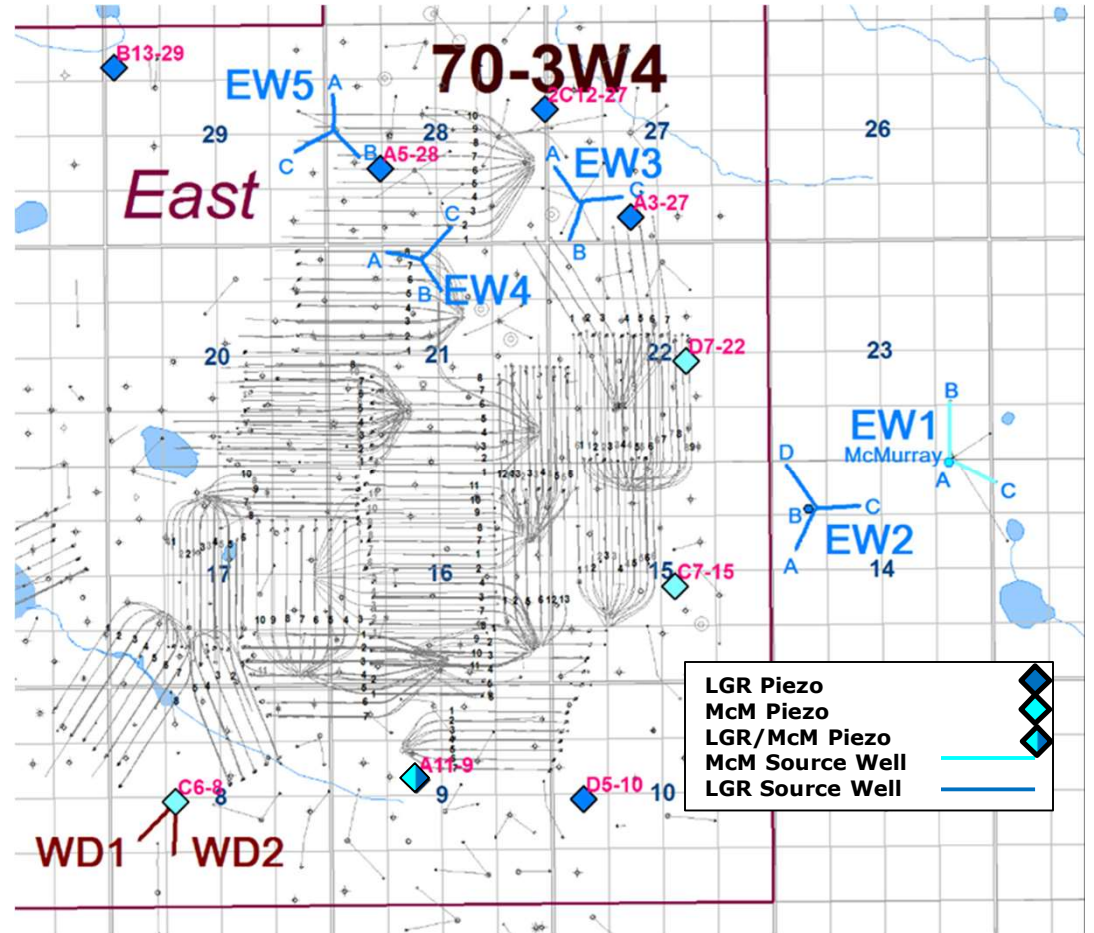
| | |
|-------|--------------------|
| EW2-A | 1F1/12-14-070-03W4 |
| EW2-C | 1F1/14-14-070-03W4 |
| EW2-D | 1F2/13-14-070-03W4 |
| EW3-A | 1F1/05-27-070-03W4 |
| EW3-B | 1F1/04-27-070-03W4 |
| EW3-C | 1F2/03-27-070-03W4 |
| EW4-A | 1F1/14-21-070-03W4 |
| EW4-B | 1F1/15-21-070-03W4 |
| EW4-C | 1F1/02-28-070-03W4 |
| EW5-A | 1F2/12-28-070-03W4 |
| EW5-B | 1F1/05-28-070-03W4 |
| EW5-C | 1F2/08-29-070-03W4 |

Source McM Wells:

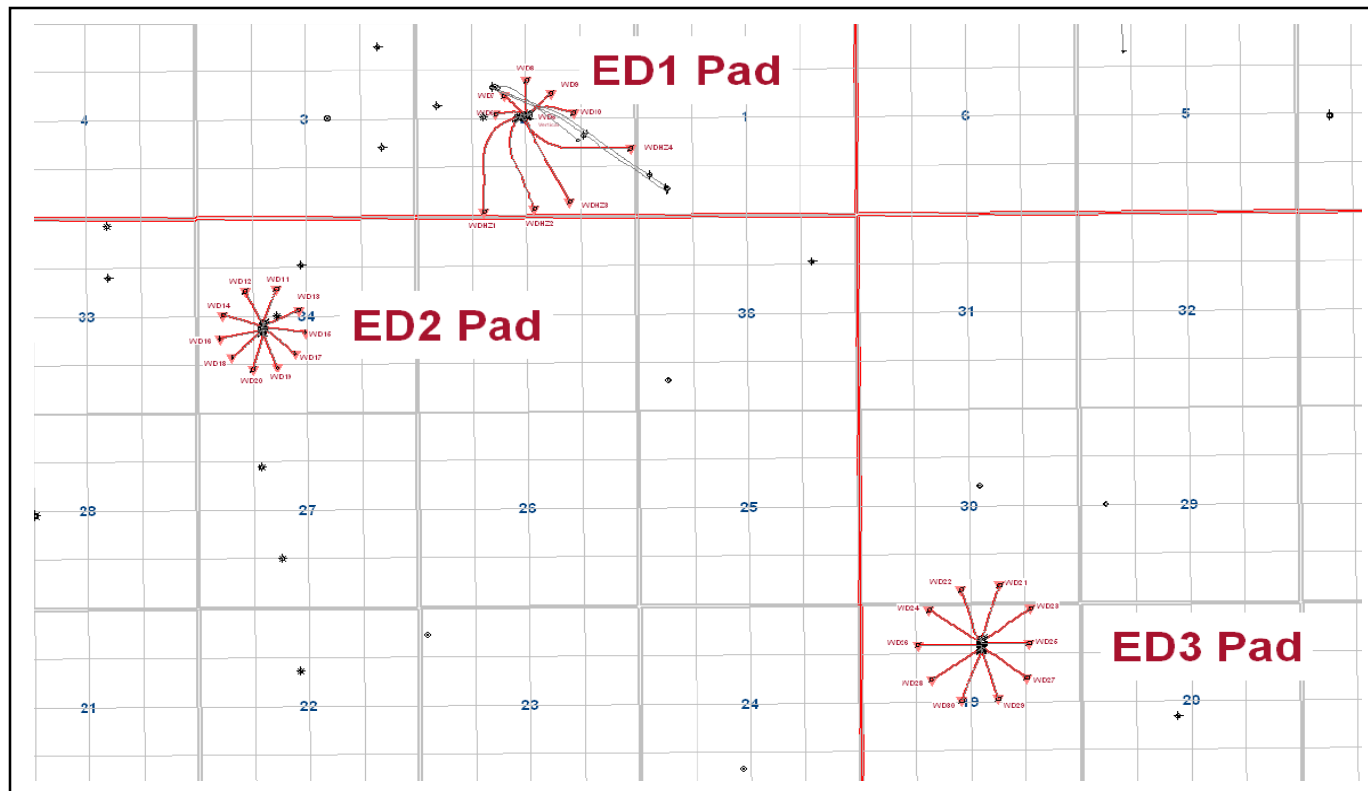
| | |
|---------------|-----------------------|
| EW1-A | 1F2/01-23-070-03W4 |
| EW1-B | 1F1/08-23-070-03W4 |
| EW1-C | 1F1/13-13-070-03W4 |
| EW2-B Redrill | 1F1/13-14-070-03W4/02 |

Pressure Sink Wells:

| | |
|--------------------|--------------------|
| WD1 (LGR Disposal) | 100/05-08-070-03W4 |
| WD2 (McM Source) | 1F1/03-08-070-03W4 |



Current Disposal Well Locations



Legend

Disposal Wells:

ED1 Pad:

- WDHZ 1 – 100/03-02-070-04W4 (McM)
- WDHZ 2 – 100/02-02-070-04W4 (LGR)
- WDHZ 3 – 102/02-02-070-04W4 (LGR)
- WDHZ 4 – 100/08-02-070-04W4 (McM)
- WD6 – 104/11-02-070-03W4 (McM)
- WD7 – 105/11-02-070-03W4 (LGR)
- WD8 – 104/10-02-070-03W4 (LGR)
- WD9 – 102/10-02-070-03W4 (LGR)
- WD10 – 103/10-02-070-03W4 (McM)

ED2 Pad (McMurray):

- WD11 – 102/11-34-069-04W4
- WD12 – 100/12-34-069-04W4
- WD13 – 103/11-34-069-04W4
- WD14 – 102/12-34-069-04W4
- WD15 – 100/06-34-069-04W4
- WD16 – 100/05-34-069-04W4
- WD17 – 102/06-34-069-04W4
- WD18 – 102/05-34-069-04W4
- WD19 – 100/03-34-069-04W4
- WD20 – 100/04-34-069-04W4

ED3 Pad (McMurray):

- WD21 – 100/02-30-069-03W4
- WD22 – 100/03-30-069-03W4
- WD23 – 100/16-19-069-03W4
- WD24 – 100/14-19-069-03W4
- WD25 – 100/16-19-069-03W4
- WD26 – 102/14-19-069-03W4
- WD27 – 100/09-19-069-03W4
- WD28 – 100/11-19-069-03W4
- WD29 – 100/10-19-069-03W4
- WD30 – 102/11-19-069-03W4

Abandoned Disposal well:

- WD5 – 103/11-02-070-03W4

Facility Summary

- Diluent Tank Floating Roof Replacement (FC1-T-402A)
 - completed and online Q4 2020
- Phase H Expansion
 - currently on hold

Plant Performance

Steam

- System capacity at 76,750 m³/d
- Calendar year 2020 average flowrate is 71,424 m³/d | 93% of Capacity
- Continued operation at high steam qualities

Oil

- System capacity at 30,239 m³/d (190,200 bbl/d)
- Calendar year 2020 average flowrate is 25,979 m³/d (163,406 bbl/d) | 86% of Capacity

Subsection 4.4 9-12 Historical and Upcoming Activity



Pad Abandonments

- No pad abandonments are currently planned at Foster Creek in the next 5 years.

Well integrity - casing

Well Integrity Management (WIM) Program:

- Ongoing monitoring and inspection program to assess casing condition and repair as required, including EMAT and UT of surface casing depending on severity
- Cenovus complies with all regulations surrounding inactive wells, including tracking compliance status and reporting well suspensions in the DDS system
- Pursuing application and viability of Potassium Silicate coating on surface casing to prevent or slow down corrosion

Casing Corrosion

| Corrosion Location | Status |
|--|-----------------------------|
| Surface Casing Exterior | Mitigation program in place |
| Surface Casing Interior / Intermediate Casing Exterior | Mitigation program in place |
| Pack-Off | Investigation on-going |

Well Integrity - SCVF

- Cenovus complies with all regulations and when a surface casing vent flow is identified, Cenovus reports non-serious and serious surface casing vent flows into the DDS system per ID 2003-01
- Cenovus engages with the AER to discuss appropriate strategies related to managing SCVFs
- Cenovus communicates with the AER regularly on the status of the vents and presents an annual update on activities executed to manage surface casing vent flows
- Cenovus is currently tracking 41 separate SCVF events across FCCL which have been reported. Within 2020, only one new well has been recorded (non-serious within DDS)

Well Integrity - Wellheads

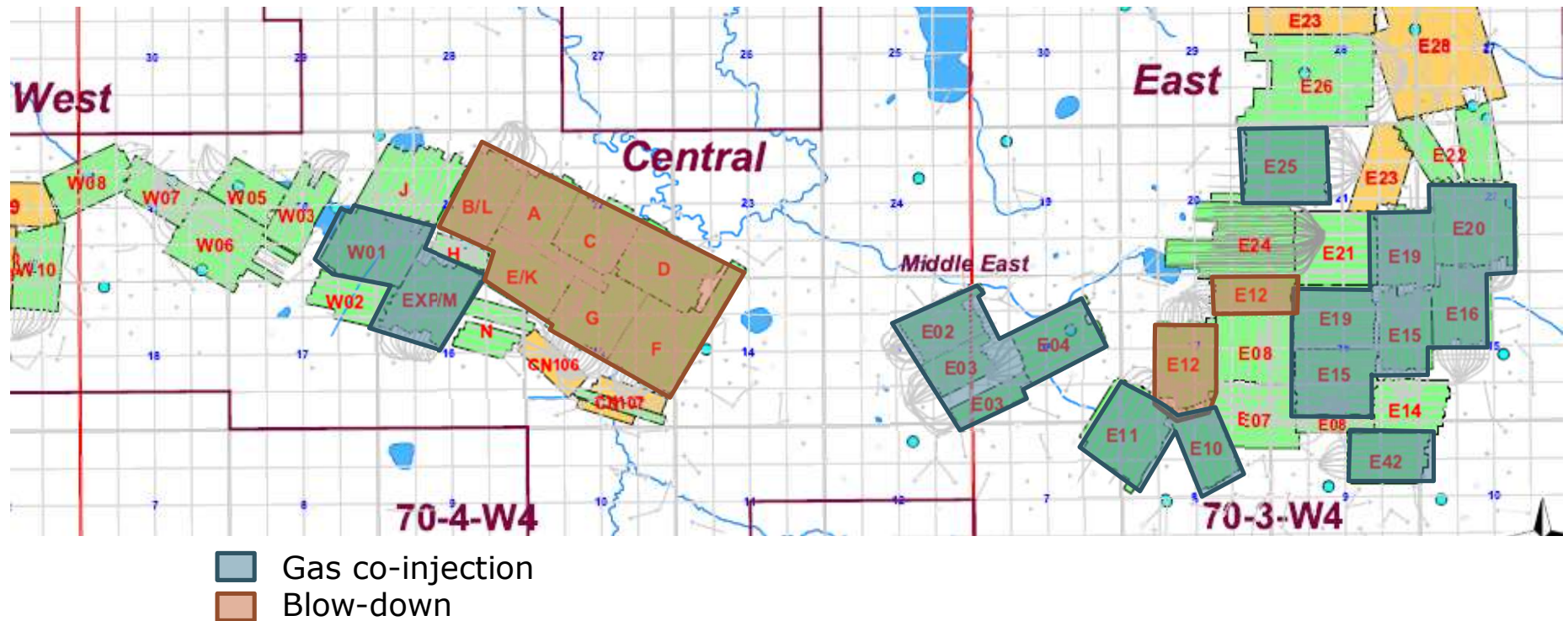
- Wellhead integrity monitoring is ongoing. No wellhead failures observed

Well integrity – strain monitoring

Strain monitoring wells installed:

- Baseline data in non-thermally affected zones and in lateral sections
 - 102/03-23-070-05W4/00 (FC W20 Pad)
 - 102/05-23-070-05W4/00 (FC W20 Pad)
 - 100/05-28-070-03W4/00 (FC E26 Pad)
 - 100/14-14-070-05W4/00 (FC W20 Pad)
 - 106/13-07-070-05W4/00 (FC W32/35 Pad)
 - 1AB/02-32-070-04W4/00 (FC North)
- Field measurements scheduled relative to milestone dates

Well patterns with active gas injection



*EXP/M and E10 pad co-injection supported by offset well pads

2020 OSCA application/approval summary

| Act | Application No. | Application Description | Approval Date |
|------|-----------------|--|---------------|
| OSCA | 1927877 | Field Wide Co-injection and Blowdown Strategy Update | 2020-04-24 |
| OSCA | 1928433 | E23, E26, E28, W09 and W25 Trajectory Amendment | 2020-08-26 |
| OSCA | 1929259 | West Pads Dilation Application | 2020-09-22 |
| OSCA | 1929693 | W06 Solvent Co-injection Trial Extension Application | 2020-09-22 |
| OSCA | 1930147 | F106 Pad Additional Well Pair Application | 2021-01-20 |
| OSCA | 1931500 | East Casing Gas Re-injection Scheme | 2021-01-25 |

2020 OSCA/EPEA application/approval summary

| Act | Application No. | Application Description | Approval Date |
|-----------|----------------------|---|---------------|
| OGCA-D65 | 1931557 | Lower Grand Rapids pressure Update Scheme | 2020-12-09 |
| OSCA | 1931746 | N11 Pad Well Pair Trajectory Update | 2021-01-12 |
| OSCA/EPEA | 1928628 029-68492 | Diluent Tank (FC1-T-402A) Internal Floating Roof Conversion (Joint Application) | 2020-08-06 |
| | | | |

Facility Modifications

- Emulsion cooling project completed and online - Q1 2020
- FC1 OTSG economizer repairs/replacements – July / August / October / December 2020
- FC3 WAC regenerator vessel replacements – August 2020
- Phase F turnaround in September – October 2020

Facility performance

Process Treating Area

- Challenges with heat exchanger fouling and limited cooling capacity at high emulsion rates and hotter outside ambient air temperatures
- Multiphase flow distribution impacted Emulsion Cooler performance leading to Inlet Degasser challenges in FC1. Troubleshooting and modifications were under evaluation.
- Treater performance improved in FC3 from relocation of Demulsifier (DMO) injection

De-oiling

- ISF debottlenecking has increased throughput in FC3
- On-going monitoring of oil-in-water excursions

Facility performance

Water Treatment

- Challenges managing Boiler Feed Water (BFW) hardness at different times during the year, resulting in reduced OTSG firing, lower BFW rates, and periods of reduced emulsion
- Significant outage work for maintenance and mechanical repair of various equipment

Steam Generation

- Significant downtime on FC1 OTSGs for mechanical repairs
 - Regulatory inspections, radiant section bend replacements, and economizer repairs led to extended outages on multiple boilers
- BFW/Emulsion and BFW/BD heat exchanger fouling
 - Increased fouling led to cooling limitations and reductions in BFW volume, significant lost production occurred to allow for cleaning of this equipment

Facility performance

Utilities

- NRSU modifications for improved operability completed
 - Seeing positive results in terms of reduced chemical carry-over, improved chemical efficiency

Pilots/technical innovations

Solvent pilots

- Solvent Assisted Process (SAP) using 10% solvent (propane). In operation Q4 2017 and data collection is ongoing
- Solvent Driven Process (SDP) – higher concentration solvent (propane). In operation Q1 2018 and data collection is ongoing
- Diluent Solvent Assisted Process (Dilsap) – planned to trial at 1 well pad using diluent at 10%. Project is in front end engineering phase and targeted to be online in Q4 2023.

SAP/SDP Pilot Learnings & Interpretation of Data

N Pad SAP Pilot:

- Pilot operated successfully without any major safety issue
- SAP has the potential to reduce iSOR by at least ~25%
- SAP solvent recovery to Dec 2021 is ~75%
- Bitumen upgrading was not observed during the trial period
- Solvent injection had no impact on CPF

W06 SDP Pilot:

- W06 SDP is conducted under Experimental Scheme Approval No. 13030. Learnings and interpretation of data will be provided in the Directive 054 presentation for the experimental scheme

2020 Non-compliance summary - AER

| Date | Non-compliance | Follow-up |
|------------|---|--|
| 2020-03-05 | Notice of Noncompliance – Outstanding Casing Failure Report @ 13-14-070-04W4 | Compliance achieved – Mar 31, 2020 |
| 2020-03-09 | Notice of Noncompliance – Oil Facility @ 04-22-70-4W4 (ABIF0009474) | Noncompliance rescinded – Apr 14, 2020 |
| 2020-10-26 | Notice of Noncompliance – WM082 Site-Specific Liability Assessment – Failure to update SSLA cost estimates | Updated SSLA submitted – Nov 25, 2020 |
| 2020-11-27 | Voluntary Self-Disclosure ID11118 – W0231421 - Disposal Well put into service prior to receiving final D65 approval | Compliance achieved – Dec 11, 2020 |
| 2020-11-27 | Voluntary Self-Disclosure ID11118 – W0324835 - Disposal Well put into service prior to receiving final D65 approval | Compliance achieved – Dec 11, 2020 |
| 2020-11-27 | Voluntary Self-Disclosure ID11118 – W0275056 - Disposal Well put into service prior to receiving final D65 approval | Compliance achieved – Dec 11, 2020 |

2020 Non-compliance Summary – EPEA

| Date | Non-compliance | Follow-up |
|------------|--|--|
| 2020-01-15 | EDGE Ref# 0362745. Failure to meet the 90% uptime requirement on FC1-B-0206 due to FLOWSIC issues with the CEMS unit. | CEMS unit was reset. |
| 2020-01-15 | EDGE Ref# 0362746. Failure to meet the 90% uptime requirement on FC1-B-0210 due to temperature sensor error causing the readings to drift. | Temperature unit replaced. |
| 2020-04-24 | EDGE Ref# 0365714. Stormwater from W26 Pad was released off-site without being tested due to berm washout. | Water tested; met release criteria. Berm repaired and sedimentation removed. |
| 2020-05-17 | EDGE Ref# 0366539. Failure to meet the 90% uptime requirement on COGEN 2 due to intermittent and erratic flow values from loose connection on analog output. | Connections in CEMS panel were verified. |
| 2020-06-07 | EDGE Ref# 0367731. Stormwater from W19 Pad was released off-site without being tested during heavy rainfall event. | Water tested and controlled pump-off commenced to reduce water levels. |
| 2020-07-29 | EDGE Ref# 0370051. NOx exceedance on COGEN 1 and COGEN 2 due to testing islanding during an electrical storm (lean/lean firing). | No follow-up required. |
| 2020-08-03 | EDGE Ref# 0371282. Two week notification (AMD11) for RATA/MSS was not submitted prior to RATA/MSS. | Checklist added to vendor booking process. |
| 2020-11-19 | EDGE Ref# 0374700. NOx limit exceedance on COGEN 2 during WECC testing (AESO requirement that runs generator at various loads). | No follow-up required. |

Future plans

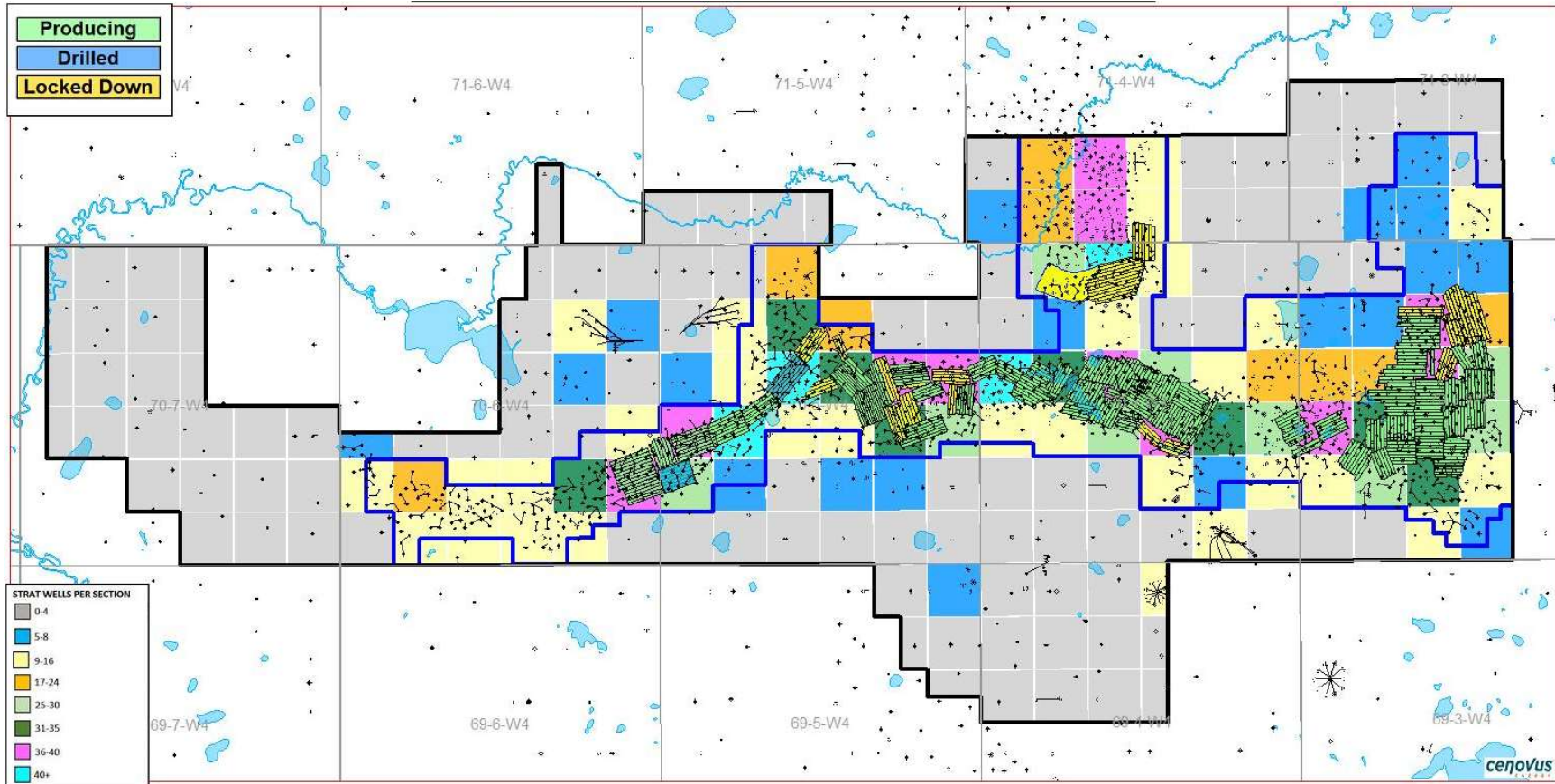
Potential Future Applications

- West trunk Produced Gas Debottleneck (Casing Gas Re-injection)
- Oil Debottleneck (Phase H)
- Brackish Water Debottleneck

Future Plant Activity

- Casing gas re-injection at E14
 - Targeted to be online September 2021

Planned development map



Questions

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