

BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION OF WHITE ROCK OIL & GAS, LLC FOR AN ORDER AUTHORIZING THE RECOMPLETION OF ITS FEDERAL 15-30 WELL (API # 25-083-21184) LOCATED IN THE SW/4SE/4 OF SECTION 30, TOWNSHIP 23 NORTH, RANGE 60 EAST, M.P.M, RICHLAND COUNTY, MONTANA, IN THE MADISON GROUP AS AN EXCEPTION TO MBOGC ORDER NO. 51-79, AND SUCH OTHER AND FURTHER RELIEF AS THE MBOGC MAY DEEM NECESSARY AND APPROPRIATE

MBOGC DOCKET NO. 51-2022

APPLICATION

WHITE ROCK OIL & GAS, LLC, 5810 Tennyson Parkway, Suite 500, Plano, Texas 75024:

[A] Presents the following application:

1. Applicant is the operator of the Federal 13-30 well located in the SW/4SW/4 of Section 30, Township 23 North, Range 60 East, M.P.M., which is completed in and producing from the Madison Group. Applicant is also the operator of the Federal 15-30 well located in the SW/4SE/4 of said Section 30, which was completed in and producing from the Stony Mountain formation but is presently shut-in. Applicant desires to recomplete the Federal 15-30 well in the Madison Group. However, the S/2 of Section 30, Township 23 North, Range 60 East, M.P.M., comprises a 320-acre permanent spacing unit for the production of oil and gas from the Madison Group pursuant to MBOGC Order No. 51-79, and therefore your Applicant requires an order authorizing a second well to produce from the Madison Group in said spacing unit prior to undertaking the proposed recompletion.

[B] Requests:

1. This matter be set for hearing, with notice given as required by law and the MOU; and
2. After hearing the matter, the Board enter its order authorizing Applicant to recomplete its Federal 15-30 well in the Madison Group in the permanent spacing unit comprised of the S/2 of Section 30, Township 23 North, Range 60 East, M.P.M., Richland County, Montana, as an exception to MBOGC Order No. 51-79, and such other and further relief as the MBOGC may deem necessary and appropriate.

DATED this 8th day of April, 2022.

WHITE ROCK OIL & GAS, LLC

By  _____
John R. Lee, Its Attorney

CROWLEY FLECK PLLP
P.O. Box 2529
Billings, MT 59103-2529

RECEIVED

APR 13 2022

BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION OF KRAKEN OIL & GAS LLC FOR AN ORDER CREATING AN OVERLAPPING TEMPORARY SPACING UNIT ("OTSU") COMPRISED OF ALL OF SECTIONS 4 AND 9, TOWNSHIP 26 NORTH, RANGE 57 EAST, M.P.M., AND SECTION 33, TOWNSHIP 27 NORTH, RANGE 57 EAST, M.P.M., RICHLAND AND ROOSEVELT COUNTIES, MONTANA, AND AUTHORIZING THE DRILLING OF A HORIZONTAL BAKKEN/THREE FORKS FORMATION WELL THEREON AT ANY LOCATION NOT CLOSER THAN 200' (HEEL/TOE SETBACK)/500' (LATERAL SETBACK) TO THE BOUNDARIES OF SAID OTSU, CLARIFYING MBOGC ORDER NO. 40-2017, VACATING MBOGC ORDER NO. 376-2012, AND SUCH OTHER AND FURTHER RELIEF AS THE MBOGC MAY DEEM APPROPRIATE

MBOGC DOCKET NO. 53-2022

APPLICATION

KRAKEN OIL & GAS LLC, 9805 Katy Freeway, Suite 300, Houston, Texas 77024:

[A] Presents the following application:

1. Applicant is an interest owner within all or portions of Sections 4 and 9, Township 26 North, Range 57 East, M.P.M., and Sections 33 and 34, Township 27 North, Range 57 East, M.P.M., Richland and Roosevelt Counties, Montana. Said Sections 4 and 9 are presently subject to MBOGC Order No. 376-2012, while said Sections 33 and 34 are subject to MBOGC Order Nos. 39-2017 and 40-2017. Kraken Oil & Gas LLC operates the Shayla 34-33 #1H well in the PSU comprised of All of Sections 33 and 34, Township 27 North, Range 57 East, M.P.M.

2. To more efficiently and economically recover Bakken/Three Forks formation reserves underlying the captioned lands, Applicant proposes to drill a horizontal Bakken/Three Forks formation well at a location within, but not closer than 200' (heel/toe setback)/500' (lateral setback) to the exterior boundaries of, an OTSU comprised of All of Sections 4 and 9, Township 26 North, Range 57 East, M.P.M., and Section 33, Township 27 North, Range 57 East, M.P.M. To preserve the correlative rights of all interest owners in said Sections 33 and 34, MBOGC Order No. 40-2018 should be amended to clarify that said order is limited to oil and associated natural gas produced from the Bakken/Three Forks formation from the Shayla 34-33 #1H well. Additionally, MBOGC Order No. 376-2012 must be vacated.

3. Applicant will, within 90 days of successful completion of the proposed horizontal operation, file an application for Board consideration of permanent spacing and other matters relating to production from said well.

[B] Requests:

1. This matter be set for hearing, with notice given as required by law and the MOU;

2. After hearing the matter, the Board enter its order (i) creating an OTSU comprised of All of Sections 4 and 9, Township 26 North, Range 57 East, M.P.M., and Section 33, Township 27 North, Range 57 East, M.P.M., Richland and Roosevelt Counties, Montana, and authorizing the drilling of a horizontal Bakken/Three Forks formation well at any location within such OTSU but not closer than 200' (heel/toe setback)/500' (lateral setback) to the exterior boundaries thereof, providing that operations for the drilling of such well must be commenced within one year from the date of such order and further providing that the OTSU shall be limited to production from the proposed horizontal well; (ii) amending MBOGC Order No. 40-2018 to clarify that said order

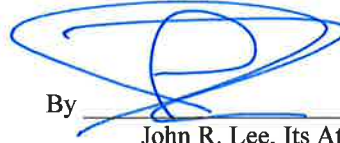
RECEIVED

MAY 10 2022

is limited to oil and associated natural gas produced from the Bakken/Three Forks formation from the Shayla 34-33 #1H well; and (iii) vacating MBOGC Order No. 376-2012.

DATED this 6th day of May, 2022.

KRAKEN OIL & GAS LLC



By _____
John R. Lee, Its Attorney

CROWLEY FLECK PLLP
P.O. Box 2529
Billings, MT 59103-2529
Email: jlee@crowleyfleck.com

RECEIVED

MAY 10 2022

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION OF KRAKEN OIL & GAS LLC FOR AN ORDER AUTHORIZING THE DRILLING OF UP TO THREE ADDITIONAL HORIZONTAL BAKKEN/THREE FORKS FORMATION WELLS IN THE OVERLAPPING TEMPORARY SPACING UNIT ("OTSU") COMPRISED OF ALL OF SECTIONS 4 AND 9, TOWNSHIP 26 NORTH, RANGE 57 EAST, M.P.M., AND ALL OF SECTION 33, TOWNSHIP 27 NORTH, RANGE 57 EAST, M.P.M., RICHLAND AND ROOSEVELT COUNTIES, MONTANA, AT ANY LOCATIONS NOT CLOSER THAN 200' (HEEL/TOE SETBACK)/500' (LATERAL SETBACK) TO THE BOUNDARIES THEREOF, AND SUCH OTHER AND FURTHER RELIEF AS THE MBOGC MAY DEEM APPROPRIATE

MBOGC DOCKET NO. 54-2022

APPLICATION

KRAKEN OIL & GAS LLC, 9805 Katy Freeway, Suite 300, Houston, Texas 77024:

[A] Presents the following application:

1. Applicant is an interest owner and operator within all or portions of Sections 4 and 9, Township 26 North, Range 57 East, M.P.M., and Section 33, Township 27 North, Range 57 East, M.P.M., Richland and Roosevelt Counties, Montana. It is anticipated that said lands will comprise an overlapping temporary spacing unit ("OTSU") for purposes of Bakken/Three Forks formation production pursuant to Montana Board of Oil and Gas Conservation Order No. __-2022.

2. Applicant requests authority to drill up to three additional horizontal Bakken/Three Forks formation wells within said OTSU, at any locations not closer than 200' (heel/toe setback)/500' (lateral setback) to the exterior boundaries thereof, if in its judgment as operator of the OTSU such operations appear reasonable and prudent.

[B] Requests:

1. This matter be set for hearing and placed on the Default Docket, with notice given as required by law and the MOU;

2. After hearing the matter, the Board enter its order authorizing the Applicant to drill up to three additional horizontal Bakken/Three Forks formation wells at any locations within, but not closer than 200' (heel/toe setback)/500' (lateral setback) to the exterior boundaries of, the OTSU comprised of Sections 4 and 9, Township 26 North, Range 57 East, M.P.M., and Section 33, Township 27 North, Range 57 East, M.P.M., Richland and Roosevelt Counties, Montana.

DATED this 6th day of May, 2022.

KRAKEN OIL & GAS LLC

By _____

John R. Lee, Its Attorney

CROWLEY FLECK PLLP

P.O. Box 2529

Billings, MT 59103-2529

Email: jlee@crowleyfleck.com

RECEIVED

MAY 10 2022

**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**

**BEFORE THE BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA**

**IN THE MATTER OF THE APPLICATION
OF BEHM ENERGY, INC. FOR AN ORDER
DESIGNATING THE SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$,
SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ AND
NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ OF SECTION 27, TOWNSHIP
35 NORTH, RANGE 20 EAST, BLAINE
COUNTY, AS A TEMPORARY SPACING
UNIT AND AUTHORIZING THE DRILLING
OF A SAWTOOTH FORMATION
EXPLORATORY WELL AT A LOCATION
NOT LESS THAN 330' FEET FROM THE
EXTERIOR BOUNDARIES OF THE
REQUESTED TEMPORARY SPACING UNIT.**

APPLICATION

DOCKET NO. 55 - 2022

Behm Energy, Inc. ("Applicant"), P.O. Box 1060, Minot, North Dakota 58702-1060, presents the following Application:

1. Applicant is the owner and operator of oil and gas leasehold interests in, to and under the E $\frac{1}{2}$ of Section 27, Township 35 North, Range 20 East, Blaine County.
2. Applicant desires to drill its Flynn 2-27-35-20 well at an approximate location 2,310' FNL and 1,320' FEL of Section 27.
3. If authorized the proposed well will be drilled to an approximate depth of four thousand four hundred feet (4,400') to the Sawtooth Formation to test for the presence of oil.
4. The Sawtooth Formation underlying the E $\frac{1}{2}$ of Section 27 is presently subject to temporary spacing established by ARM 36.22.702(1, 2 & 7) which provides, in part, that ". . . no oil well with a projected depth of 6,000 feet or less shall be located closer than 330 feet to any legal subdivision line, and only one well shall be permitted to produce from the same reservoir within the same legal subdivision."
5. Based upon an approximate location of 2,310' FNL and 1,320' FEL from the exterior boundaries of Section 27 the proposed location is not in compliance with ARM 36.22.702.
6. The proposed wellsite location is based upon geophysical data and information and the interpretation thereof and said location in Applicant's opinion is the optimum location for a successful Sawtooth Formation oil well.
7. Because of the location of Applicant's proposed exploratory well Applicant requests the SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 27, comprising forty acres, be designated by this Board as a temporary spacing unit for said well and oil produced from the Sawtooth Formation.

RECEIVED

MAY 12 2022

8. Applicant requests authorization and approval from this Board to drill and produce the above well.
9. Applicant believes the requested temporary spacing unit is necessary in order to adequately and efficiently increase the ultimate recovery of Sawtooth Formation oil from the foregoing lands.
10. Applicant believes the granting of the request herein will serve to protect the correlative rights of all interested parties and will be in the best interest of prevention of waste and conservation of oil.
11. Should the proposed well be drilled and completed as a well capable of commercial production Applicant will apply for an Order designating and delineating a permanent spacing unit for production of Sawtooth Formation oil therefrom.

WHEREFORE, Applicant requests the following:

1. This matter be set for hearing by this Board and notice thereof be given as required by law;
2. After hearing this matter this Board enter its Order granting and approving the request of Applicant herein; and
3. For such other or additional relief as this Board may deem appropriate.

Dated May 9, 2022.

LEE LAW OFFICE PC

By: 

Don R. Lee, Attorney for Applicant
Lee Law Office PC
158 Main Street – P.O. Box 790
Shelby, MT 59474
Telephone: (406) 434-5244
Facsimile: (406) 434-5246
Email: don@leelawofficepc.com

RECEIVED

MAY 12 2022

**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**

**BEFORE THE BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA**

<p>IN THE MATTER OF THE APPLICATION OF LONEWOLF OPERATING, LLC FOR AN ORDER DESIGNATING THE E$\frac{1}{2}$NE$\frac{1}{4}$SW$\frac{1}{4}$ AND W$\frac{1}{2}$NW$\frac{1}{4}$SE$\frac{1}{4}$ OF SECTION 32, TOWNSHIP 35 NORTH, RANGE 21 EAST, BLAINE COUNTY, AS A PERMANENT SPACING UNIT FOR APPLICANT'S FIREMOON #11-32 OIL WELL AND SAWTOOTH FORMATION PRODUCTION THEREFROM.</p>	<p>APPLICATION</p> <p>DOCKET NO. <u>56</u> - 2022</p>
--	---

Lonewolf Operating, LLC ("Applicant"), P.O. Box 81026, Billings, Montana 59108-1026, presents the following Application:

1. Applicant is the owner and operator of oil and gas leasehold interests in, to and under the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 32, Township 35 North, Range 21 East, Blaine County.
2. Applicant has drilled and completed its Firemoon #11-32 well at a location 2,285' FSL and 2,598' FWL of Section 32, said wellsite location lying within and upon the NE $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 32.
3. Applicant's Firemoon #11-32 well produces Sawtooth Formation oil from a depth above 6,000' subsurface.
4. Board Order No. 59-2021, dated and effective August 12, 2021, designated the E $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ and W $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 32 as a temporary spacing unit for the drilling of Applicant's Firemoon #11-32 Sawtooth Formation test well.
5. Applicant believes the appropriate permanent spacing unit for the production of Sawtooth Formation oil from its Firemoon #11-32 well is the E $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ and W $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 32.
6. Applicant requests an Order from this Board designating and delineating the E $\frac{1}{2}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ and W $\frac{1}{2}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 32 as the permanent spacing unit for Applicant's Firemoon #11-32 well and Sawtooth Formation oil produced therefrom.
7. Applicant believes that approval and granting of the request herein will be in the best interest of prevention of waste of oil and the conservation thereof and will not adversely affect the correlative rights of any party.

WHEREFORE, Applicant requests the following:

1. This matter be set for hearing by this Board and notice thereof be given as required by law;
2. After hearing this matter this Board enter its Order granting and approving the request of Applicant herein; and

RECEIVED
MAY 12 2022

**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**

3. For such other or additional relief as this Board may deem appropriate.

Dated May 10, 2022.

LEE LAW OFFICE PC

By: 

Don R. Lee, Attorney for Applicant
Lee Law Office PC
158 Main Street – P.O. Box 790
Shelby, MT 59474
Telephone: (406) 434-5244
Facsimile: (406) 434-5246
Email: don@leelawofficepc.com

RECEIVED

MAY 12 2022

**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**

BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION OF DENBURY ONSHORE LLC FOR AN ORDER AUTHORIZING IT TO DRILL A DEADWOOD SAND TEST AT A LOCATION APPROXIMATELY 440' FNL AND 450' FEL IN SECTION 17, TOWNSHIP 4 NORTH, RANGE 62 EAST, M.P.M., FALLON COUNTY, MONTANA, AS AN EXCEPTION TO A.R.M. 36.22.702, VACATING MBOGC ORDER NO. 41-2021, AND SUCH FURTHER RELIEF AS THE MBOGC MAY DEEM APPROPRIATE

MBOGC DOCKET NO. 57-2022

APPLICATION

DENBURY ONSHORE LLC, 5851 Legacy Circle, Suite 1200, Plano, Texas 75024:

[A] Presents the following application:


1. Applicant is an interest owner and operator in Section 17, Township 4 North, Range 62 East, M.P.M., Fallon County, Montana.
2. Due to subsurface structural considerations, and topographic and subsurface constraints, Applicant desires to drill a well at an approximate location 440' FNL and 450' FEL in said Section 17 for purposes of evaluating the Deadwood Sand, and requires Board authorization to do so as an exception to A.R.M. 36.22.702. Applicant also requests that MBOGC Order No. 41-2021 be vacated.
3. In the event of a successful completion, Applicant will expediently make application for permanent spacing of the well, including (if appropriate) filing an application for proper spacing with the North Dakota Industrial Commission, Department of Mineral Resources.

[B] Requests:

1. This matter be set for hearing, with notice given as required by law and the MOU; and
2. After hearing the matter, the MBOGC enter its order authorizing the Applicant to drill a well for purposes of evaluating the Deadwood Sand at a location 440' FNL and 450' FEL in Section 17, Township 4 North, Range 62 East, M.P.M., as an exception to A.R.M. 36.22.702, vacating MBOGC Order No. 41-2021, and such other and further relief as the MBOGC may deem appropriate.

DATED this 11th day of May, 2022.

DENBURY ONSHORE LLC

By 
John R. Lee, Its Attorney

CROWLEY FLECK PLLP
P.O. Box 2529
Billings, MT 59103-2529
Email: jlee@crowleyfleck.com

RECEIVED

MAY 13 2022

**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**

BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF THE STATE OF MONTANA

IN THE MATTER OF THE APPLICATION OF DENBURY ONSHORE LLC FOR AN ORDER APPROVING A PILOT ENHANCED RECOVERY PROJECT IN THE MADISON GROUP PURSUANT TO A.R.M. 36.22.1229 WITHIN AN OVERLAPPING TEMPORARY SPACING UNIT COMPRISED OF THE S/2SE/4, SE/4SW/4 OF SECTION 8, THE SW/4SW/4 OF SECTION 9, THE W/2 OF SECTION 16, AND THE E/2, E/2W/2 OF SECTION 17, TOWNSHIP 10 NORTH, RANGE 58 EAST, M.P.M., FALLON COUNTY, MONTANA (THE "PROJECT AREA"), VACATING MBOGC ORDER NO. 87-2021, AND SUCH OTHER AND FURTHER RELIEF AS THE MBOGC MAY DEEM NECESSARY AND APPROPRIATE

MBOGC DOCKET NO. 58-2022

APPLICATION

DENBURY ONSHORE LLC, 5851 Legacy Circle, Suite 1200, Plano, Texas 75024:

[A] Presents the following application:

1. Applicant is an interest owner and operator within the above-described tract, and the Project Area lies entirely within Madison Participating Area A in the Cabin Creek Unit in Fallon County, Montana.

2. Applicant requests authority to conduct a pilot enhanced recovery project in the Madison Group involving the Project Area comprised of the S/2SE/4, SE/4SW/4 of Section 8, the SW/4SW/4 of Section 9, the W/2 of Section 16, and the E/2, E/2W/2 of Section 17, Township 10 North, Range 58 East, M.P.M, Fallon County, Montana, pursuant to A.R.M. 36.22.1229. Applicant intends to drill two horizontal producers and one horizontal injector well trending in a southwest to northeast azimuth within the Project Area, such wells to be located not closer than 200' to the Project Area boundaries. Applicant also intends to utilize its 34-08 well as an injector (MBOGC Order No. 88-2021) and its 23X-17R well as an injector (MBOGC Order No. 89-2021). It is the Applicant's opinion that approval of the request herein will not adversely affect correlative rights and will prevent waste by enhancing recovery of oil and gas from the Madison Group. Applicant also requests that MBOGC Order No. 87-2021 be vacated.

[B] Requests:

1. This matter be set for hearing, with notice given as required by law and the MOU; and

2. After hearing the matter, the Board enter its order approving a pilot enhanced recovery project in the Madison Group involving the Project Area comprised of the S/2SE/4, SE/4SW/4 of Section 8, the SW/4SW/4 of Section 9, the W/2 of Section 16, and the E/2, E/2W/2 of Section 17, Township 10 North, Range 58 East, M.P.M, Fallon County, Montana, pursuant to A.R.M. 36.22.1229 for a period not to exceed eighteen (18) months from the commencement of injection operations, vacating MBOGC Order No. 87-2021, and such other and further relief as the MBOGC may deem necessary and appropriate.

DATED this 10th day of May, 2022.

DENBURY ONSHORE LLC

By _____

John R. Lee, Its Attorney

CROWLEY FLECK PLLP

P.O. Box 2529

Billings, MT 59103-2529

Email: jlee@crowleyfleck.com

RECEIVED

MAY 11 2022

**BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA**

IN THE MATTER OF THE APPLICATION OF VECTA OIL & GAS, LTD. FOR AN ORDER DESIGNATING A TEMPORARY SPACING UNIT COMPRISED OF E2SE OF SECTION 18, TOWNSHIP 30 NORTH, RANGE 48 EAST, M.P.M., AND W2SW OF SECTION 17, TOWNSHIP 30 NORTH, RANGE 48 EAST, ROOSEVELT COUNTY, MONTANA, AND AUTHORIZING THE DRILLING OF A VERTICAL NISKU OIL (AND ASSOCIATED GAS) WELL THEREON AS AN EXCEPTION TO THE LOCATION REQUIREMENTS OF BOARD ORDER NO. 65-6, AT A LOCATION IN THE NESE OF SECTION 18, 2340' FSL AND 383' FEL

MBOGC DOCKET NO. 59-2022

APPLICATION

VECTA OIL & GAS, LTD., 575 Union Blvd., Suite 208, Lakewood, CO 80228:

A) VECTA PRESENTS THE FOLLOWING APPLICATION:

1. Applicant is an interest owner in the E2SE of Section 18 and W2SW of Section 17, Township 30 North, Range 48 East, M.P.M., Roosevelt County, Montana. Presently, the SE of Section 18, and the SW of Section 17, each comprise a spacing unit for Nisku production from the *Sletvold #1-30 Well* and the *Zimmerman #2 Well*, respectively, under MBOGC Order No. 62-26, as amended by Order No. 65-6, which provides for one (Nisku) well per 160-acre quarter section, located anywhere within a 1,320-foot square centered within said quarter section.
2. Applicant is finalizing its acquisition of the two aforementioned Wells, which (if the acquisition is consummated) will remain shut-in pending Applicant's assessment of the same and further consultation with the Board.
3. Applicant proposes to drill a vertical Nisku Test well from a pad located in the NESE of Section 18, 2340' FSL and 383' FEL, within the proposed temporary spacing unit comprised of the E2SE of Section 18 and the W2SW of Section 17 in Township 30 North, Range 48 East, M.P.M.
4. The proposed well location is based upon Applicant's geophysical data and is, in Applicant's opinion, the optimum location for production of the Nisku formation in the immediate vicinity.
5. Applicant will, within 90 days of successful completion of the proposed vertical well, file an application for Board consideration of permanent spacing and other matters relating to production from said well.


B) VECTA REQUESTS:

1. This matter be set for hearing, with notice given as required by law;
2. After hearing the matter, the Board enter its order approving this application as an exception to existing MBOGC Order No. 65-6, and authorize the drilling of a vertical Nisku Test Well from a pad located in the NESE of Section 18, 2340' FSL and 383' FEL, within the temporary spacing unit comprised of the E2SE of Section 18 and the W2SW of Section 17 in Township 30 North, Range 48 East, M.P.M., and for such other relief as the Board deems appropriate.

Dated this 12th day of May, 2022

VECTA OIL & GAS, LTD.

By


Darin W. Johnson, its attorney
Johnson and Lebsock, PLLP
2108 Broadwater, Suite 103
Billings, Montana 59102

djohnson@johnsonandlebsock.com

**BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA**

IN THE MATTER OF THE APPLICATION OF
VECTA OIL & GAS, LTD. FOR AN
EXCEPTION TO THE LOCATION
REQUIREMENTS OF BOARD ORDER NO. 65-
6, AND AUTHORIZING THE DRILLING OF A
VERTICAL NISKU OIL (AND ASSOCIATED
GAS) WELL AT A LOCATION IN THE SWSE
OF SECTION 30, 576' FSL AND 1443' FEL,
WITHIN THE SE OF SECTION 30, TOWNSHIP
31 NORTH, RANGE 48 EAST, M.P.M.,
ROOSEVELT COUNTY, MONTANA

MBOGC DOCKET NO. 60-2022

APPLICATION

VECTA OIL & GAS, LTD., 575 Union Blvd., Suite 208, Lakewood, CO 80228:

A) VECTA PRESENTS THE FOLLOWING APPLICATION:

1. Applicant is an interest owner in the SE of Section 30, Township 31 North, Range 48 East, M.P.M., Roosevelt County, Montana. Section 30 is presently under MBOGC Order No. 65-6, which provides for one (Nisku) well per 160-acre quarter section, located anywhere within a 1,320-foot square centered within said quarter section.
2. Pursuant to Order No. 65-6, Applicant proposes to drill a vertical Nisku Test well in the SE of Section 30, but from a pad located in the SWSE of Section 30, 576' FSL and 1443' FEL, within the spacing unit comprised of the SE of Section 30 in Township 31 North, Range 48 East, M.P.M.
3. The proposed (exception) well location is based upon Applicant's geophysical data and is, in Applicant's opinion, the optimum location for production of the Nisku formation in the immediate vicinity.
4. Applicant will, within 90 days of successful completion of the proposed vertical well, file an application for Board consideration of permanent spacing and other matters relating to production from said well.


B) VECTA REQUESTS:

1. This matter be set for hearing, with notice given as required by law;
2. After hearing the matter, the Board enter its order approving this application as an exception to existing MBOGC Order No. 65-6, to authorize the drilling of a vertical Nisku Test Well from a pad located in the SWSE of Section 30, 576' FSL and 1443' FEL, within the spacing unit comprised of the SE of Section 30 in Township 31 North, Range 48 East, M.P.M., and for such other relief as the Board deems appropriate.

Dated this 12th day of May, 2022

VECTA OIL & GAS, LTD.

By _____


Darin W. Johnson, its attorney
Johnson and Lebsock, PLLP
2108 Broadwater, Suite 103
Billings, Montana 59102
djohnson@johnsonandlebsock.com

**BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA**

IN THE MATTER OF THE APPLICATION OF VECTA OIL & GAS, LTD. FOR AN ORDER DESIGNATING A TEMPORARY SPACING UNIT COMPRISED OF S2SW OF SECTION 8, TOWNSHIP 30 NORTH, RANGE 48 EAST, M.P.M., AND N2NW OF SECTION 17, TOWNSHIP 30 NORTH, RANGE 48 EAST, ROOSEVELT COUNTY, MONTANA, AND AUTHORIZING THE DRILLING OF A VERTICAL NISKU OIL (AND ASSOCIATED GAS) WELL THEREON AS AN EXCEPTION TO THE REQUIREMENTS OF BOARD ORDER NO. 65-6, AT A LOCATION IN THE NWNW OF SECTION 17, 182' FNL AND 1023' FWL

MBOGC DOCKET NO. 01-2022

APPLICATION

VECTA OIL & GAS, LTD., 575 Union Blvd., Suite 208, Lakewood, CO 80228:

A) VECTA PRESENTS THE FOLLOWING APPLICATION:

1. Applicant is an interest owner in the S2SW of Section 8 and N2NW of Section 17, Township 30 North, Range 48 East, M.P.M., Roosevelt County, Montana. MBOGC Order No. 62-26, as amended by Order No. 65-6, pertains to Section 17, and provides for one (Nisku) well per 160-acre quarter section, located anywhere within a 1,320-foot square centered within said quarter section. Section 8 is subject to the statewide spacing rule (although it may fall within the "buffer" provided for in Order No. 65-6).
2. Applicant proposes to drill a vertical Nisku Test well from a pad located in the NWNW of Section 17, 182' FNL and 1023' FWL, within the proposed temporary spacing unit comprised of the S2SW of Section 8 and N2NW of Section 17 in Township 30 North, Range 48 East, M.P.M.
3. The proposed well location is based upon Applicant's geophysical data and is, in Applicant's opinion, the optimum location for production of the Nisku formation in the immediate vicinity.
4. Applicant will, within 90 days of successful completion of the proposed vertical well, file an application for Board consideration of permanent spacing and other matters relating to production from said well.

B) VECTA REQUESTS:

1. This matter be set for hearing, with notice given as required by law;
2. After hearing the matter, the Board enter its order approving this application as an exception to existing MBOGC Order No. 65-6 and A.R.M. 36.22.702, and authorize the drilling of a vertical Nisku Test Well from a pad located in the NWNW of Section 17, 182' FNL and 1023' FWL, within the temporary spacing unit comprised of the S2SW of Section 8 and the N2NW of Section 17 in Township 30 North, Range 48 East, M.P.M, and for such other relief as the Board deems appropriate.

Dated this 12th day of May, 2022

VECTA OIL & GAS, LTD.

By 

Darin W. Johnson, its attorney
Johnson and Lebsock, PLLP
2108 Broadwater, Suite 103
Billings, Montana 59102
djohnson@johnsonandlebsock.com

RECEIVED

MAY 10 2022

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

**State of Montana
Board of Oil and Gas Conservation**

Docket No. 000-2022
Underground Injection Control
Application

Kevin, East Nisku Oil Field
Anderson No. 1
(25-101-22495-00-00)
Sec. 26, Township 35 North, Range 1 West
Toole County, Montana

D & H Energy, LLC
June 16, 2022

62 - 2022

D & H Energy, LLC
201 1st Street South
Shelby, MT 59474
(406) 424-8211 or (406) 424-8216
Fax (406) 434-5470

RECEIVED

MAY 10 2022

**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**

May 9, 2022
Montana Board of Oil & Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

Attention: Mr. George Hudak
UIC Program Director

Re: Request for Conversion and Subsequent Class II Disposal Well Permit
Kevin, East Nisku Oil Field
Anderson No. 1
Located in Section 26, Township 35 North, Range 1 West
Toole County, Montana

Dear Mr. Hudak;

Please find enclosed an underground injection control (UIC) application by D & H Energy requesting the granting of authority to convert and inject water and other exempt wastes into the Madison formation in the currently non producing Anderson No. 1 well operated by D & H Energy, LLC in the Kevin, East Nisku Oil Field. D & H Energy, LLC is requesting that the application be placed on the default docket for the MBOGC June 16, 2022 hearing.

If you have any questions concerning the enclosed application please call Hank Coolidge at (406) 460-7400. You may also call Mac McDermott at 406-450-5577.

Yours truly,

D & H Energy, LLC
Mac McDermott, Permitting Agent

RECEIVED

MAY 10 2022

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

**Underground Injection Control (UIC) Permit application
Anderson No. 1
W1/2NE1/4SE1/4 26-35N-1W
Toole County, Montana
Kevin, East Nisku Oil Field**

The following is submitted in support of D & H Energy LLC's application to permit the conversion of the Anderson No. 1 non-producing well for the purpose of injection into the Madison Formation within the Kevin, East Nisku Oil Field, as required by Rule 36.22.1403 of the Rules and Regulations of the Montana Board of Oil and Gas Conservation.

1(a) Well Locations:

The Anderson No.1 well has been proposed for conversion and class II disposal well within the Kevin, East Nisku Oil Field in Toole County, Montana as described below. Currently the Anderson No. 1 is currently not producing from the Nisku formation. *Attachment 1* shows the surface location and a circle of a quarter (1/4) mile radius representing the area of review (AOR) for this well.

Anderson No. 1 1980' fsl, 990' fel 26-35N-1W

1(b) Wells within Quarter Mile AOR.

There are zero (0) wells, not including the Anderson No. 1, that are within the 1/4 mile AOR.

1(c) Location of All Pipelines

Injection material will be delivered to the disposal by truck to the location and disposed of by a pump.

1(d) Area Producing Formations, Fresh Water Aquifers and Water Information

Water well information from the Ground Water Information Center at the Montana Bureau of Mines and Geology indicates there are no fresh water wells within the AOR of the proposed injector.

There are no potential sources of drinking water (USDW's – less than 10,000 ppm TDS) that can be found in the area.

Also three other formations identified by the EPA in a previous report have less than 10,000 TDS. The formations are the Bow Island Sandstones (508' - 855'), Dakota (1018' - 1040') and the Sunburst Sands (1448' - 1473'). All of these formations will be protected from the Madison Limestone injection zone by cement and steel casing, tubing, and packer.

1(e) Name and Geological Description of Injection Zone:

The proposed injection zone is the Mississippian-Age Madison Limestone located at a depth of 1650' - 2449' MD. Part of the Madison group, Madison Limestone is a Mississippian aged rock. The Madison is bounded on top by approximately 30' of dense Ellis shales. Immediately below the Madison Limestone lies very dense Lodgepole Limestone which has a top depth of approximately 2450'.

Original reservoir pressure for this zone was estimated to be 730 psi. Today the reservoir pressure is probably close to the original pressure of 730 psi. There are no abnormal characteristics known to exist within this zone.

In previous applications to the MBOGC for UIC permits a .773 psi/ft fracture gradient was established as a default fracture gradient.

1(f) Additional Information on Producing Wells within the AOR:

As stated in question 1(b) there are no wells within the AOR. .

1(g) Open Hole Logs

Logs and geological information for the Anderson No. 1 well are currently on file with the MBOGC. A Cement Bond Log will be submitted to the MBOGC as soon as one is available.

1(h) Description of Wellbore Construction

Refer to *Attachment 3*.

1(i) Description of Injection Fluid

The injection fluid will consist of exempt exploration and production wastes from the Kevin-Sunburst Field and the Kevin, East Nisku Oil Field. Only wastes that are exempt by the EPA will be disposed of at this facility.

Using 0.773 psi/ft (the established Fred & George Creek Field fracture gradient), a 1.005 average specific gravity of the injected fluids, and a 2400' TVD, the maximum calculated pressure for the injection well would be 810 psi.

P_m = maximum surface injection pressure.

$$P_m = [fg - 0.433(Sg)] d$$

$$P_m = [0.773 - 0.433(1.005)] 2400'$$

$$P_m = 810 \text{ psi}$$

1(j) Names of Owners of Record

D & H Energy, LLC is the operator of the Anderson No. 1 well. The name and address of leasehold and surface owners within the AOR are presented in *Attachment 4*.

D & H Energy, LLC has notified the leasehold and the surface owners in accordance with 36.22.1410 (1) notification requirements for an underground



injection permit. *Attachment 5* is an affidavit to the fact that the notices have been mailed.

Attachments

1. Map of ¼ mile AOR
2. Open Hole Type Log
3. Well Bore Schematic
4. List of Leasehold and Surface Owners within AOR
5. Affidavit of Notification
6. Sundry Notice

RECEIVED
MAY 10 2022
MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

WORKOVER PROGRAM
KEVIN, EAST NISKU OIL FIELD
Anderson No. 1 Sec. 26-T35N-1W

Convert Well to Class II Disposal Well

SPECIAL REMARKS

Well is to be converted to disposal well.

Procedures

- 1) Trip in hole with casing scrapper past 2535'
- 2) Run Cement Bond Log (Evaluate CBL)
- 3) Pickup Cast-iron bridge plug run in hole set at 2535 or higher to isolate the Nisku Oil Perforations. Set cement plug on top of bridge plug if required.
- 4) Trip in hole with wireline perforating gun and perforate 2400-2435' with 6 shots a foot.
- 5) Pick up Baker AD-1 packer and trip in hole with 2 3/8 tubing and circulate inhibited packer fluid.
- 6) Set Baker AD-1 packer at 2310' MD, pack off wellhead and pressure test casing.
- 7) Perform MIT per MTBOGC guidelines.

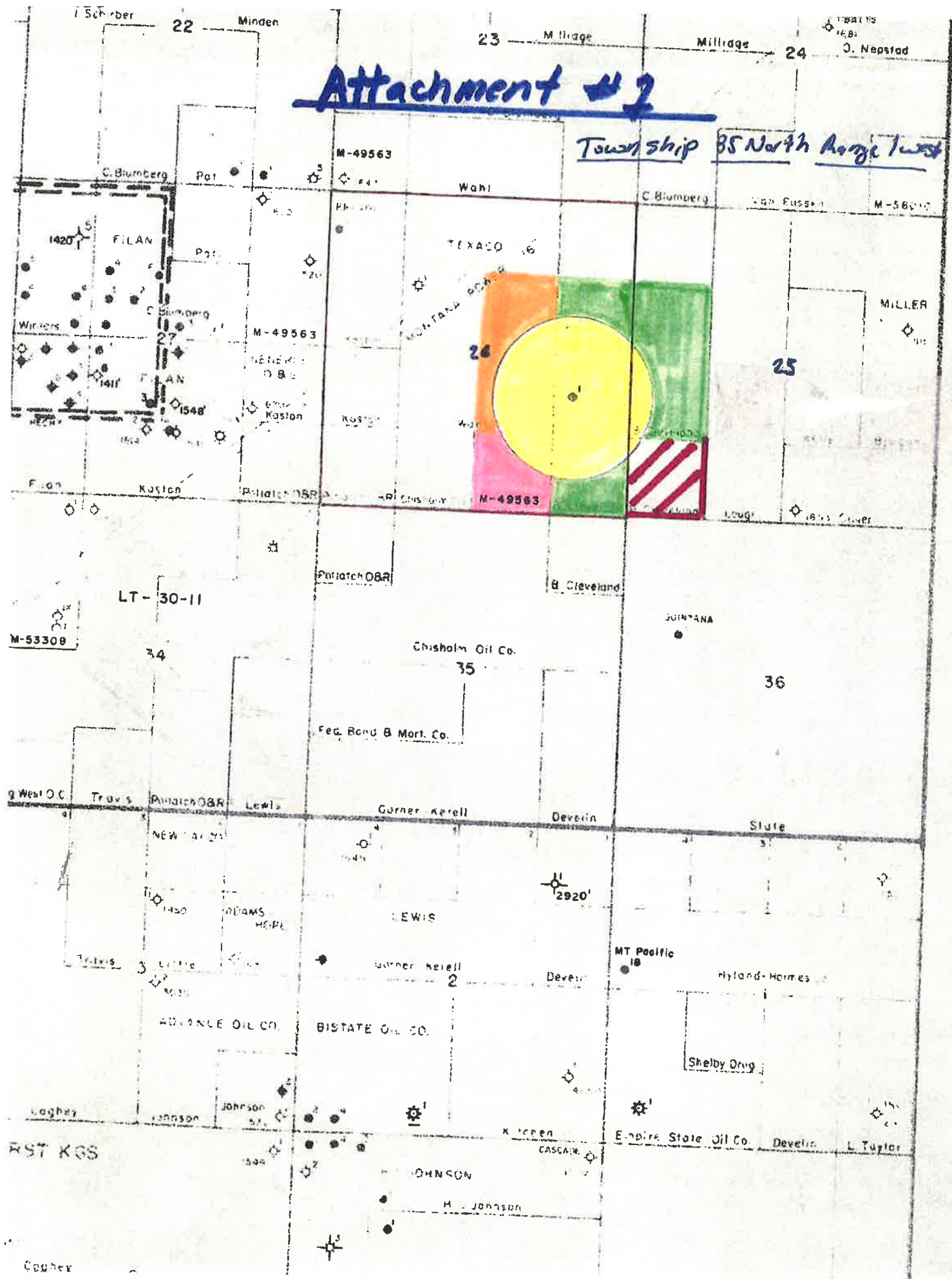
RECEIVED

MAY 10 2022

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

Attachment #2

Township 35 North Range 1 West



Surface Owners

**T & C Alme Inc.
857 Oilmont Hwy
Oilmont, MT 59466**

**David H. Schwartz
P.O. Box 665
Independence, KS 67301**

Mineral Owners

**Marias Land Company, LLC
P.O. Box 502
Shelby, MT 59474**

**Charles R. Wiggins
P.O. Box 10862
Midland, TX 79702**

**David H. Schwartz
P.O. Box 352
Neodesha, KS 66757**

**Dan H. Schwartz
130 Amsterdam Road
Lancaster, PA 17603**

**Bureau of Land Management
5001 Southgate Drive
Billings, MT 59101**

**Mary Lynn Dau
21729 Summit Grade
Lenore, ID 83541**

**Dean Held
16430 S. Bradley Rd.
Oregon City, OR 97045**

Mineral Owners

**Robert Cleveland
109 College
Saint Maries, ID 83861**

**Sharon Cleveland Randall
109 College
Saint Maries, ID 83861**

**Lorraine Cleveland McGregor
109 College
Saint Maries, ID 83861**

**Gary and Sharon Randell
16919 N. Highland Ln
Colbert, WA 99005-9074**

**Stanley R. Chandler
5130 East Charleston
Suite 5770
Las Vegas, NV 98122**

**Robert Ranzenbach
9649 Vineyard Crest Road
Bellevue, WA 98004**

**Dana Cleveland
534 North Eisenhower
Moscow, ID 83843**

**Nancy Furey
Box 280
Challis, ID 83226**

**Madge Pea
22521 Summit Grade
Lenore, ID 83541**

BEFORE THE BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA

IN RE THE APPLICATION OF D & H ENERGY, LLC FOR HEARING OF ITS REQUEST FOR A UIC PERMIT TO CONVERT THE ANERSON No. 1 WELL, 1980' FSL, 990 FEL SEC. 26, T35N R1W TO AN INJECTION WELL, FOR THE PURPOSE OF DISPOSING OF EXEMPT EXPLORATION AND PRODUCTION WASTES WITHIN THE KEVIN EAST NISKU OIL FIELD.
[TOOLE COUNTY, MONTANA]

NOTICE OF APPLICATION
FOR UIC PERMIT FOR
INJECTION WELL

DATE: May 9th, 2022

TO: SURFACE AND LEASEHOLD OWNERS WITHIN AREA OF REVIEW

Re: Application for Underground Injection Well

D & H Energy, LLC, P.O. Box 716, Shelby, MT 59474, has applied for a permit to convert the Anderson No. 1 well, 1980' FSL, 990' FEL, Section 26, T35N, R1W to a Class II disposal well for the purpose of injection into the Madison Limestone formation at a depth of 2400-2435. The application will be heard by the Montana Board of Oil and Gas Conservation at its scheduled June 16th, 2022, hearing, beginning at 9:00 a.m., in the Montana Board of Oil and Gas Conservation board hearing room, 2535 St. Johns Avenue, Billings, Montana 59102.

A copy of the complete application is on file with the Montana Board of Oil & Gas Conservation, 2535 St. Johns Avenue, Billings, Montana 59102. If you have any questions concerning the application, please contact Mac McDermott, at the address as indicated above, or you can call at 406-450-5577.

Sincerely,



Mac McDermott,
Permitting Agent for
D & H Energy, LLC

AFFIDAVIT OF MAILING

MAC McDERMOTT, being duly sworn upon oath, deposes and says:

That on May 9th, 2022, your Affiant either delivered or caused to be deposited in the United States mail at Shelby, Montana, copies of the "Notice of Class II Injection Permit: for the Anderson No. 1 well, to all surface owners and leasehold owners within 1/4 mile of the Anderson No. 1 well on the attached mailing list.

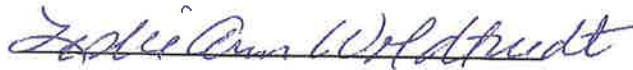
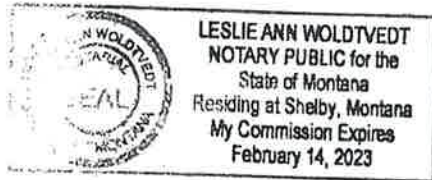
Further your Affiant sayeth not.

Dated May 9th, 2022



Mac McDermott

SUBSCRIBED AND SWORN to before me this 9th day of May, 2022.



Notary Public for the State of Montana

Residing at Shelby, Montana

My Commission Expires: Feb 14, 2023

Submit In Quadruplicate To:
MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE
BILLINGS, MONTANA 59102

SUNDRY NOTICES AND REPORT OF WELLS

Operator D & H Energy, LLC Address P.O. Box 716 City Shelby State MT Zip Code 59474 Telephone 406-460-7400 Fax _____		Lease Name: Anderson Type (Private/State/Federal/Tribal/Allotted): Private Well Number: No. 1 Unit Agreement Name: N/A Field Name or Wildcat: Kevin, East Nisku Oil Field Township, Range, and Section: T35N, R1W, Sec. 26 County: Toole
Location of well (1/4-1/4 section and footage measurements): Township 35 North, Range 1 West Section 26: NESE 1980' FSL 9990 FEL		
API Number: 25 101 22495 State County Well	Well Type (oil, gas, injection, other): <p align="center">Oil</p>	

Indicate below with an X the nature of this notice, report, or other data:

Notice of Intention to Change Plans <input type="checkbox"/> Notice of Intention to Run Mechanical Integrity Test <input type="checkbox"/> Notice of Intention to Stimulate or to Chemically Treat <input type="checkbox"/> Notice of Intention to Perforate or to Cement <input checked="" type="checkbox"/> Notice of Intention to Abandon Well <input type="checkbox"/> Notice of Intention to Pull or Alter Casing <input type="checkbox"/> Notice of Intention to Change Well Status <input checked="" type="checkbox"/> Supplemental Well History <input type="checkbox"/> Other (specify) <u>Convert to Injection</u> <input checked="" type="checkbox"/>	Subsequent Report of Mechanical Integrity Test <input type="checkbox"/> Subsequent Report of Stimulation or Treatment <input type="checkbox"/> Subsequent Report of Perforation or Cementing <input type="checkbox"/> Subsequent Report of Well Abandonment <input type="checkbox"/> Subsequent Report of Pulled or Altered Casing <input type="checkbox"/> Subsequent Report of Drilling Waste Disposal <input type="checkbox"/> Subsequent Report of Production Waste Disposal <input type="checkbox"/> Subsequent Report of Change in Well Status <input type="checkbox"/> Subsequent Report of Gas Analysis (ARM 36.22.1222) <input type="checkbox"/>
--	---

Describe Proposed or Completed Operations:

Describe planned or completed work in detail. Attach maps, well-bore configuration diagrams, analyses, or other information as necessary. Indicate the intended starting date for proposed operations or the completion date for completed operations.

1. Trip in hole with a casing scraper.
2. Run a CBL to determine if there is adequate cement above and below proposed injection zone.
3. Pickup up a cast-iron bridge plug run in hole and set at on top of open hole and place enough cement to get plug back td to 2535.
4. Trip in hole with wireline perforating gun and perforate 2400-2435 with 4 or 6 shots per foot.
5. Pick up Baker AD-1 packer and trip in hole with 2 3/8 tubing and circulate inhibited packer fluid
6. Set Baker AD-1 packer at 2310' MD pack off wellhead and pressure test casing.
7. Perform MIT per MT BOGC guidelines.

BOARD USE ONLY	
Approved _____	Date _____
Name _____	Title _____

The undersigned hereby certifies that the information contained on this application is true and correct:

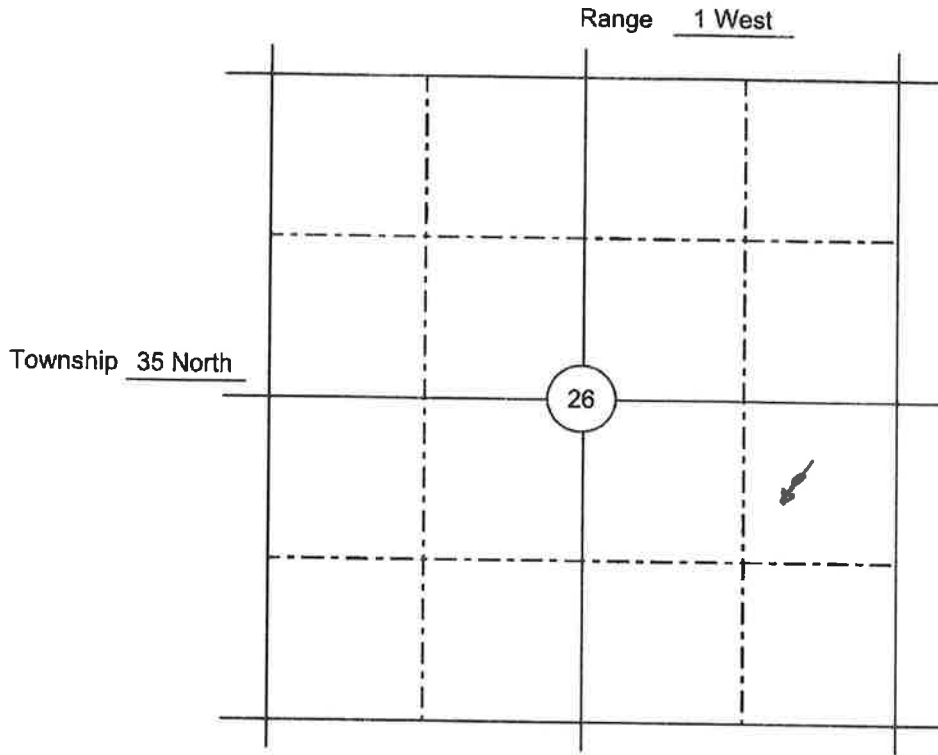
5-10-2022
[Signature]

Date	Signed (Agent)
Gary E. "Mac" McDermott, Permitting Agent for D & H	
Print Name and Title	
Telephone: _____	406-450-5577

SUPPLEMENTAL INFORMATION

NOTE: Additional information or attachments may be required by Rule or by special request.

Plot the location of the well or site that is the subject of this notice or report.



BOARD USE ONLY

CONDITIONS OF APPROVAL

The operator must comply with the following condition(s) of approval:

Failure to comply with the conditions of approval may void this permit.

*** Proof of Publication ***

HELENA INDEPENDENT RECORD
2222 Washington St
Helena, MT 59602
Ph: (406) 447-4000

D & H Energy, LLC

P.O. BOX 716
SHELBY MT 59474

ORDER NUMBER 104180

The undersigned, being duly sworn, deposes and says. That she is the principal clerk of The Helena Independent Record, a newspaper of general circulation published daily in the City of Helena, in the County of Lewis & Clark, State of Montana, and has charge of the Advertisements thereof.

Mark below if certification for the State of Montana
I hereby certify that I have read sec. 18-7-204 and 18-7-205, MCA, and subsequent revisions, and declare that the price or rate charged the State of Montana for the publication for which claim is made in printed copy in the amount of \$ _____ is not in excess of the minimum rate charged any other advertiser for publication of advertisement, set in the same size type and published for the same number of insertions, further certify that this claim is correct and just in all respects, and that payment or credit has not been received.

Christine Lar

STATE OF MONTANA
County of Lewis & Clark

On this day of May 3, 2022 before me, the undersigned, a Notary Public for the State of Montana, personally appeared Christine Lar known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed same. IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year first above written.

Section: Legal
Category: 0701 Legals Helena
PUBLISHED ON: 04/30/2022

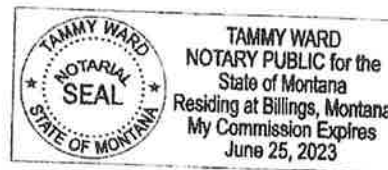
TOTAL AD COST: 115.84
FILED ON: 4/30/2022

Christine Lar
NOTARY PUBLIC for the State of Montana
Residing at Billings, MT

My commission expires: June 25, 2023

LEGAL NOTICE

BEFORE THE BOARD OIL AND GAS CONSERVATION OF THE STATE OF MONTANA NOTICE OF HEARING CONCERNING APPLIACTION FOR UIC PERMIT FOR INJECTION WELL IN RE THE APPLICATION OF D & H ENERGY, LLC, FOR HEARING OF ITS REQUEST FOR A UIC PERMIT TO CONVERT THE ANDERSON No. 1 WELL, 1980' FSL, 990' FEL SEC 26, T35N, R1W TO AN INJECTION WELL FOR THE PURPOSE OF DISPOSING OF EXEMPT EXPLORATION AND PRODUCTION WASTES INTO THE MADISON FORMATION AT A DEPTH OF 2400-2435 FEET. [TOOLE COUNTY, MONTANA] D & H Energy, P.O. Box 186, Shelby, MT 59474, has applied for a permit to convert the Anderson No. 1 well, 1980' FSL, 990' FEL, Section 26, T35N, R1W, Toole County, MT to a water injection well for the purpose of injecting into the Madison formation at a depth of 2400-2435 feet underlying the Kevin East Nisku Oil Field. The application will be heard by the Montana Board of Oil and Gas Conservation at its scheduled June 16, 2022, hearing, beginning at 9:00 a.m., in the Montana Board of Oil & Gas Conservation board hearing room, 2535 St. Johns Avenue, Billings, Montana 59102. An aquifer exemption will be requested as part of the application since the proposed injection zone contains water with less than 10,000 ppm total dissolved solids. A copy of the complete application is on file with the Montana Board of Oil & Gas Conservation, 2535 St. Johns Avenue, Billings, Montana 59102. April 30, 2022 MNAXLP





Cardinal Oil, LLC
2650 Overland Avenue
Billings, MT 59102
406-259-2580

May 11, 2022

George Hudak
UIC Coordinator
Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102


Allen 10-31-22-27-H1 Class II Injection Application
Exhibit 1: Injection Permit Request Letter
Docket ##-2022; June 16, 2022

Re: Allen 10-31-22-27-H1 Request for a Class II Injection Well Permit
SESE-Section 22-T10N-R31E

Dear Mr. Hudak,

Cardinal Oil, LLC respectfully requests permission to convert the existing Allen 10-31-22-27-H1 oil well into a Class II water injection well. The well is located within and upon SESE Quarter-Quarter, Section 22, Township 10 North, Range 31 East, Wildcat Rosebud, N Field, Rosebud County, Montana. Pursuant to Rule 36.22.1403, Administrative Rules of Montana, please find enclosed the required information and exhibits to satisfy the terms of an injection application. Additionally, Cardinal Oil, LLC requests permission to operate the existing pit at Allen 10-31-22-27-H1 location. The required MBOGC Form 23 pit sundry and associated attachments are included as an exhibit in this application. Cardinal Oil, LLC requests that the application be placed on the docket for the June 16, 2022 hearing at the Montana Board of Oil and Gas Conservation. If you have any questions or would like additional information regarding this application, please contact Danny Green, Engineering Consultant, with Cardinal Oil, LLC at 406-855-6208.

Sincerely,


Carter Stewart
Member
Cardinal Oil, LLC

RECEIVED

MAY 11 2022

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

63 - 2022

Cardinal Oil, LLC

2650 Overland Avenue
Billings, MT 59102

BEFORE THE BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA

June 16, 2022 – Docket ##-2022

Application for a Class II Injection Well Permit

Allen 10-31-22-27-H1
Heath/Cox Ranch Formation
SESE, Section 22, T10N, R31E
Wildcat Rosebud, N Field
Rosebud County, Montana

Cardinal Oil, LLC requests to convert the existing Allen 10-31-22-27-H1 oil well into a Class II water injection well. The well is located within and upon SESE Quarter-Quarter, Section 22, Township 10 North, Range 31 East, Wildcat Rosebud, N Field, Rosebud County, Montana. The total measured depth of the well is ten thousand two hundred eighteen feet (10,218') with a true vertical depth of approximately five thousand two hundred seven feet (5,207'). Produced water from nearby Heath oil wells will be re-injected into the Heath formation via the lateral of the Allen 10-31-22-27-H1 well.



Prepared by:
Danny Green
Engineering Consultant
Cardinal Oil, LLC

May 10, 2022



List of Exhibits

Exhibit 1: Injection Permit Request Letter	1
Exhibit 2: Injection Conversion Sundry	4
Exhibit 3: Application Contents and Requirements Information	6
Exhibit 4: Map of Area of Review	15
Exhibit 5: MBOGC Map of Area of Review	16
Exhibit 6: MBMG List of 3 rd Cat Creek Water Analyses in Musselshell and Rosebud Counties	17
Exhibit 7: MBMG Map of Area of Review	18
Exhibit 8: Allen 10-31-22-27-H1 GR/AIR/CND Open Hole Strip Log	19
Exhibit 9: Allen 10-31-22-27-H1 Strip of Horizontal Mud Log	23
Exhibit 10: Allen 10-31-22-27-H1 Production Water Analysis	31
Exhibit 11: Allen 10-31-22-27-H1 Current Wellbore Diagram	32
Exhibit 12: Allen 10-31-22-27-H1 RCBL Strip Log	33
Exhibit 13: Allen 10-31-22-27-H1 Proposed Wellbore Diagram	38
Exhibit 14: Flying Monkey 1H Production Water Analysis	NA
Exhibit 15: Montana Cadastral Map of Area of Review	39
Exhibit 16: Landowner Notification Letters	40
Exhibit 17: Affidavit of Notification Mailing	44
Exhibit 18: Legal Notice and Affidavit of Publication – Helena Independent Record	NA
Exhibit 19: Legal Notice and Affidavit of Publication – Forsyth Independent Press	NA
Exhibit 20: Pit Sundry with Attachments	45

Allen 10-31-22-27-H1 Class II Injection Application
Exhibit 2: Injection Conversion Sundry
Docket ##-2022; June 16, 2022

ARM 36.22.307, 601, 605,
 1003, 1004, 1011, 1013,
 1103, 1222, 1240, 1301,
 1306, 1309, and 1417

Submit In Quadruplicate To:

MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE
BILLINGS, MONTANA 59102

SUNDRY NOTICES AND REPORT OF WELLS

Operator Cardinal Oil, LLC		Lease Name: Allen
Address 2650 Overland Avenue		Type (Private/State/Federal/Tribal/Allotted): Private
City Billings	State MT	Zip Code 59102
Telephone 406-259-2580	Fax	Well Number: 10-31-22-27-H1
Location of well (1/4-1/4 section and footage measurements): SESE, 242 FSL, 1253 FEL		Unit Agreement Name: NA
		Field Name or Wildcat: Wildcat Rosebud, N
		Township, Range, and Section: T10N, R31E, Section 22
API Number: 25 087 21750	Well Type (oil, gas, injection, other): oil	County: Rosebud
State	County	Well

Indicate below with an X the nature of this notice, report, or other data:

Notice of Intention to Change Plans	<input type="checkbox"/>	Subsequent Report of Mechanical Integrity Test	<input type="checkbox"/>
Notice of Intention to Run Mechanical Integrity Test	<input type="checkbox"/>	Subsequent Report of Stimulation or Treatment	<input type="checkbox"/>
Notice of Intention to Stimulate or to Chemically Treat	<input type="checkbox"/>	Subsequent Report of Perforation or Cementing	<input type="checkbox"/>
Notice of Intention to Perforate or to Cement	<input type="checkbox"/>	Subsequent Report of Well Abandonment	<input type="checkbox"/>
Notice of Intention to Abandon Well	<input type="checkbox"/>	Subsequent Report of Pulled or Altered Casing	<input type="checkbox"/>
Notice of Intention to Pull or Alter Casing	<input type="checkbox"/>	Subsequent Report of Drilling Waste Disposal	<input type="checkbox"/>
Notice of Intention to Change Well Status	<input type="checkbox"/>	Subsequent Report of Production Waste Disposal	<input type="checkbox"/>
Supplemental Well History	<input type="checkbox"/>	Subsequent Report of Change in Well Status	<input type="checkbox"/>
Other (specify) Notice of Intention, Convert to Injection	<input checked="" type="checkbox"/>	Subsequent Report of Gas Analysis (ARM 36.22.1222)	<input type="checkbox"/>

Describe Proposed or Completed Operations:

Describe planned or completed work in detail. Attach maps, well-bore configuration diagrams, analyses, or other information as necessary. Indicate the intended starting date for proposed operations or the completion date for completed operations.

Cardinal, LLC requests to convert the Allen 10-31-22-27-H1 oil well into a Class II injection well according the following procedure:

- MIRU service rig & support equipment. TOO & LD 76 taper rod string & 2.00" RXBM pump. ND wellhead, NU BOP. TOO & LD 2-7/8" L-80 production tubing string & BHA.**
- MU 5.00"x15' seal assembly. PU & RIH with 3-1/2" IPC L-80 injection tubing. Circulate packer fluid, land seal assembly in PBR of liner top at 4,297'. ND BOP, NU wellhead. Pressure test 3-1/2"x7" annulus to 800 psi for 15 minutes. Perform injection test at 4.0 bpm. RDMO service rig & support equipment.**
- Construct three 400 bbl tank water handling facility with 165T-5L triplex pump.**

BOARD USE ONLY	
Approved _____	Date _____
_____	_____
Name	Title

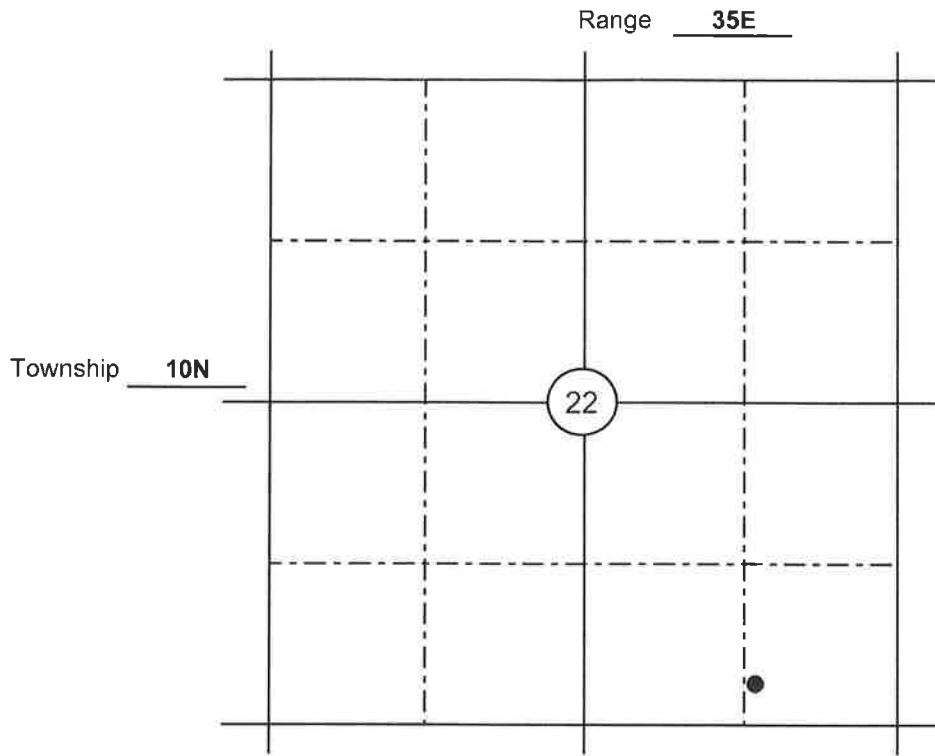
The undersigned hereby certifies that the information contained on this application is true and correct:

5/11/2022	<i>Danny Green</i>
Date	Signed (Agent)
Danny Green, Engineering Consultant	
Print Name and Title	
Telephone: _____	406-855-6208

SUPPLEMENTAL INFORMATION

NOTE: Additional information or attachments may be required by Rule or by special request.

Plot the location of the well or site that is the subject of this notice or report.



BOARD USE ONLY

CONDITIONS OF APPROVAL

The operator must comply with the following condition(s) of approval:

Failure to comply with the conditions of approval may void this permit.



Application Contents and Requirements Information

The following information is provided as justification in support of the application by Cardinal Oil, LLC to convert the Allen 10-31-22-27-H1 Heath oil well into a Class II injection well for the purpose of produced water disposal. This report and associated exhibits are intended to satisfy the injection application requirements set forth in Rule 36.22.1403, Administrative Rules of Montana.

1.0.0 (a) Location of Input Well

1.1.0 (a) Surface Location

242' from the south line and 1,253' from the east line
2,949' KB; 2,923' GL
Section 22, T10N, R31E
latitude 46.611583° north, longitude -107.800045° west (NAD-83)
Wildcat Rosebud N, Field
Rosebud County, Montana

1.2.0 (a) Bottom Hole Location

10,218' TD; 5,207' TVD
225' from the south line and 732' from the east line
Section 27, T10N, R31E
latitude 46.596933° north, longitude -107.798549° west (NAD-83)
Wildcat Rosebud N, Field
Rosebud County, Montana

2.0.0 (b) Identification of Wells within the Area of Review

The proposed area of review for Allen 10-31-22-27-H1 injection project is a 1,320' radius encircling both the surface and bottom hole locations with a 1,320' offset from the lateral on either side to form a capsule shaped area. There are no wellbores that penetrate the proposed injection zone within the area of review. Please refer to Exhibits 4 and 5 for maps of the area review.

3.0.0 (c) Location of Pipelines

No pipelines currently run to the Allen 10-31-22-27-H1 well location, and no gathering system is planned as part of this project. All injectate water will be hauled via truck to the proposed injection location.



4.0.0 (d) Producing Formations and Deepest Source of Drinking Water

4.1.0 (d) Producing Formations

The Allen 10-31-22-27-H1 well has produced 2,602 bbls of oil from the Heath formation since completion on January 18, 2021. No other formations are, or have been, productive within the area of review.

4.2.0 (d) Deepest Potential Underground Sources of Drinking Water

The 3rd Cat Creek formation is commonly accepted as the deepest source of fresh water in the general area. This zone was encountered a depth of 4,048' in the Allen 10-31-22-27-H1 vertical wellbore. No wells are, or were ever, completed in 3rd Cat Creek formation within the area of review. A list of water analyses was compiled from all the tests recorded by the Montana Bureau of Mines and Geology for the 3rd Cat Creek formation in Rosebud and Musselshell Counties. Please refer to Exhibit 6 for a list of average 3rd Cat Creek water characteristics in the two-county area.

4.3.0 (d) Location of Water Wells within the Area of Review

Based on a review of well records from the Montana Bureau of Mines and Geology, no water wells exist within the area review of the Allen 10-31-22-27-H1 injection project. Please see Exhibit 7 for a map of water resources within the project vicinity.

5.0.0 (e) Geologic, Reservoir, and Water Quality Characterization of Injection Reservoir and Confining Formation

Tops, thicknesses, and lithological descriptions were derived from open hole and mud logs taken on the Allen 10-31-22-27-H1 well. Please refer to Exhibits 8 and 9 for open hole and mud strip logs.

5.1.0 (e) Top Confining Zone

5.1.1 (e) Stratigraphy and Geology

Upper Heath/Lower Tyler (Carboniferous Pennsylvanian Shale)

top: 5,170' MD; 5,021' TVD

gross thickness: 60'

lithological description: shale, dark red to dark grey, firm to soft, fissile, platy, sub blocky to blocky, slightly silty in part, slightly calcareous

5.1.2 (e) Fracture Pressure

The bottom hole fracture pressure of the top confining zone (Upper Heath/Lower Tyler Shales) is given by the equation below:

$$P_{\text{frac}} = gfD_f$$

where:

P_{frac} = bottom hole formation fracture pressure, psi

gf = fracture gradient, psi/ft

D_f = formation depth, ft

therefore:

$$P_{\text{frac}} = 0.80(5081) = 4,064.80 \text{ psi}$$

5.2.0 (e) Injection Zone

5.2.1 (e) Stratigraphy and Geology

Van Dusen/Cox Ranch/Middle Heath (Carboniferous Pennsylvanian Dolostone)

top: 5,330' MD; 5,081' TVD

gross thickness: 39'

lithological description: light to medium grey, soft to friable, mushy, microcrystalline, earthy, silty in part, trace poor inter-crystalline porosity, very argillaceous, rare disseminated microcrystalline pyrite, scattered dull yellow green fluorescence, moderate diffuse yellow green streaming cut; trace shale, dark to medium grey, firm to friable, platy to sub platy, slightly dolomitic, trace silty

5.2.2 (e) Estimated Formation Pressure

The estimated reservoir pressure of the proposed injection zone is given by the equation below:

$$P_r = P_s + 0.052\rho_w D_f$$

$$\rho_w = 8.33\gamma_{Lw}$$

where:

P_r = static bottom hole reservoir pressure, psi

P_s = static surface pressure, psi

ρ_w = density of wellbore fluid, lbs/gal

D_f = formation depth, ft

γ_{Lw} = specific gravity of wellbore fluid, dimensionless

therefore:

$$\rho = 8.33(1.02) = 8.50 \text{ lbs/gal}$$

$$P_r = 120 + 0.052(8.50)(5081) = 2,365.802 \text{ psi}$$

5.2.3 (e) Reservoir Characteristics

The pore volume available for injection in the Allen 10-31-22-27-H1 well is determined by the following equations:

$$N_p = 7758\phi_e A_{ae} h$$

$$A_{ae} = (2r_{eh}L_l + 3.14r_{eh}^2)/43560$$

where:

N_{pv} = pore volume of injection formation, bbls

A_{ae} = areal extent of injection zone (area of review), acres

L_l = lateral length, ft

r_{eh} = effective radius of wellbore (area of review radius), ft

ϕ_e = effective porosity of injection zone (from open hole logs), %

h = thickness of injection zone, ft

therefore:

$$A_{ae} = [2(1320)(5333) + 3.14(1320^2)]/43560 = 448.81 \text{ acres}$$

$$N_p = 7758(0.1412)(448.81)(39) = 19,173,950.5923 \text{ bbls}$$

Based on the preceding calculations, Cardinal Oil, LLC anticipates a total injection volume of greater than 19,000,000 bbls throughout the life of the Allen 10-31-22-27-H1 injection well.

5.2.4 (e) Analysis of Production Water

Please refer to Exhibit 10 for a quantitative chemical analysis of Heath production water from the Allen 10-31-22-27-H1 well.

6.0.0 (f) Oil or Gas Bearing Formation

As discussed, the Allen 10-31-22-27-H1 well was completed in the Van Dusen member of the Middle Heath formation. The top of the Cox Ranch/Van Dusen horizon was observed at 5,081' TVD in the curve section of the wellbore. Again, no wells are producing, or have ever produced, from the Middle Heath formation within the area of review.

7.0.0 (g) Electronic Logs and Lithological Information

A GR/AIR/CND strip log of the proposed injection zone and confining member is available in Exhibit 8. A strip of the mud log of the curve and landing section of Allen 10-31-22-27-H1 wellbore is included in Exhibit 9. Additional lithological information, including full logs and mud log geology report, is on file with the Montana Board of Oil and Gas Conservation.

8.0.0 (h) Wellbore Construction

8.1.0 (h) Existing Wellbore Configuration

The 9-5/8" surface casing on the Allen 10-31-22-27-H1 well is set at 630'. After coring, logging, and plugging back the pilot hole, a 8-3/4" curve was drilled to target depth. The well was cased with 7" to the end of the curve, and a 6" hole was drilled targeting the Van Dusen horizon. After losing a fish in the open hole lateral, a whipstock was set at 4,487' in the 7" intermediate casing, and a window was cut at 4,485'. A 6" curve and lateral were then drilled to a total depth of 10,218', where the lateral was lined with a 4-1/2" liner and cemented. Presently, the well has 2-7/8" production tubing installed with 76 taper rod string and a 2.00" rod insert pump. Please refer to Exhibit 11 for a current wellbore diagram of the Allen 10-31-22-27-H1 well.

8.1.1 (h) Casing Strings

surface: 9-5/8", 36.0#, J-55, LT&C set at 630'
 intermediate: 7", 29.0#, P-110, LT&C set at 5,179' with window top at 4,485'
 liner: 4-1/2", 11.6#, P-110, BT&C set at 10,080' with liner top at 4,297'

8.1.2 (h) Cement Program

surface: cemented to surface with 200 sacks of Class C (Type III) cement
 intermediate: cemented to 1,715' with 480 sacks of Class G cement
 liner: cemented with 345 sacks of Class G cement

Please see Exhibit 12 for a strip of the radial cement bond log of the 7" intermediate casing.

8.2.0 (h) Proposed Wellbore Configuration

To convert the Allen 10-31-22-27-H1 well into an injector, the rod string and production tubing will be removed, and 3-1/2", 9.3#, L-80 tubing will be installed as the injection string. The injection string will be internally coated with chemically inert epoxy to prevent corrosion. The 3-1/2" tubing will be stung into the liner top polish bore receptacle at 4,297' via a nickel plated seal assembly. Exhibit 13 shows a proposed wellbore diagram for the Allen 10-31-22-27-H1 injection well.

9.0.0 (i) Water Handling and Injection Hydraulics

The Allen 10-31-22-27-H1 injection well will primarily accommodate produced water from Heath horizontal wells in the Wildcat Rosebud North and South Fields, located within 20 miles of the proposed injection site.

9.1.0 (i) Existing Source Wells

Well Name	Location	API No.	Formation	Average Water Production
Flying Monkey 1H	SWSW 14-10N-34E	25-087-21748	Middle Heath	111 bbls/day
Golden Monkey 1H	SESW 16-11N-34E	25-087-21746	Middle Heath	40 bbls/day
Spider Monkey #1H	SESE 34-11N-34E	25-087-21744	Middle Heath	15 bbls/day

9.2.0 (i) Analysis of Injected Fluids

Please refer to Exhibit 14 for a quantitative chemical analysis of representative injectate water from the Flying Monkey 1H well.

9.3.0 (i) Potential Future Source Wells

Well Name	Location	API No.	Formation	Average Water Production
Snow Monkey 1H	SESE 20-10N-33E	25-087-21749	Middle Heath	uncompleted well

9.4.0 (i) Maximum Surface Injection Pressure

The maximum surface injection pressure is calculated using the following equations:

$$P_{smax} = (P_{frac} - P_{hydro})SF$$

$$P_{hydro} = 0.052\rho_i D_f$$

$$\rho_i = 8.33\gamma_{Li}$$

where:

P_{smax} = maximum injection pressure at surface, psi
 P_{frac} = bottom hole formation fracture pressure, psi
 P_{hydro} = hydrostatic pressure of injection fluid column, psi
 SF = safety factor, dimensionless
 ρ_i = density of injection fluid, lbs/gal
 γ_{Li} = specific gravity of injection fluid, dimensionless

therefore:

$$\rho = 8.33(1.020) = 8.497 \text{ lbs/gal}$$

$$P_{hydro} = 0.052(8.497)(5081) = 2,245.009 \text{ psi}$$

$$P_{smax} = (4064.80 - 2245.009)0.85 = 1,546.822 \text{ psi}$$

Please note in the calculations above, frictional pressure loss in the injection string has been disregarded to provide an additional safety margin. Based on the preceding calculations, Cardinal Oil, LLC requests a maximum surface injection pressure of 1,500 psi for the Allen 10-31-22-27-H1 injection project.

9.5.0 (i) Maximum Injection Rate

Cardinal Oil, LLC plans to install 3-1/2" internally coated injection string as part of this injection conversion project. The maximum injection rate is derived by calculating the frictional pressure loss in the injection string at the maximum surface injection pressure using the Darcy-Weisbach equations below:

$$Q_{\max} = \{d_i^5 [P_{s\max} + 0.43316 \gamma_{Li} D_{is} - P_{injwf}] / 0.0000115 f \gamma_{Li} L_{is}\}^{(1/2)}$$

$$f = 0.25 / \{\log[(k_s / 3.7 d_i) + (5.74 / (N_{Re}^{0.9}))]^2\}$$

$$N_{Re} = 7734 [(\gamma_{Li} d_i V_L) / \mu]$$

where:

Q_{\max} = maximum injection rate, bbls/day
 d_i = internal pipe diameter, in
 D_{is} = depth of injection string, ft
 γ_{Li} = specific gravity of injection fluid, dimensionless
 P_{injwf} = bottom hole well face injection pressure, psi
 f = Darcy friction factor, dimensionless
 L_{is} = length of injection string, ft
 k_s = internal pipe roughness, in
 N_{Re} = Reynolds number, dimensionless
 V_L = fluid velocity, ft/sec
 μ = dynamic fluid viscosity, cP

therefore:

$$N_{Re} = 7734 [(1.020)(2.832)(20.031)] / 1.20 = 372,922.832$$

$$f = 0.25 / \{\log[(0.00006 / 3.7(2.832)) + (5.74 / (372922.832^{0.9}))]^2\} = 0.01409$$

$$Q_{\max} = \{2.832^5 [1500 + 0.43316(1.020)(4297) - 2700] / 0.0000115(0.01414)(1.020)(4297)\}^{(1/2)} = 13,385.468 \text{ bbls/day}$$

Based on the calculations above, Cardinal Oil, LLC requests a maximum injection rate of 13,000 bbls/day for this proposed injection project.

9.6.0 (i) Average Injection Rate

The estimated average injection rate for the Allen 10-31-22-27-H1 injection well is based on the proposed injection pump design. Cardinal Oil, LLC intends to run a NOV 165T-5L triplex plunger pump as the primary injection pump. This pump configuration will yield an instantaneous injection rate of about 6,426 bbls/day.

9.7.0 (i) Average Surface Injection Pressure

The average surface injection pressure is calculated by the following Darcy-Weisbach expression:

$$P_{\text{avg}} = P_{\text{injwf}} + [(0.0000115fQ_{\text{avg}}^2\gamma_{\text{Li}}L_{\text{is}})/d_i^5] - (0.43316\gamma_{\text{Li}}D_{\text{is}})$$

$$f = 0.25/\{\log[(k_s/3.7d_i) + (5.74/(N_{\text{Re}}^{0.9})^2)]\}$$

$$N_{\text{Re}} = 7734[(\gamma_{\text{Li}}d_iV_L)/\mu]$$

where:

- P_{avg} = average injection pressure at surface, psi
- Q_{avg} = average injection rate, bbls/day
- d_i = internal pipe diameter, in
- D_{is} = depth of injection string, ft
- γ_{Li} = specific gravity of injection fluid, dimensionless
- P_{injwf} = bottom hole well face injection pressure, psi
- f = Darcy friction factor, dimensionless
- L_{is} = length of injection string, ft
- k_s = internal pipe roughness, in
- N_{Re} = Reynolds number, dimensionless
- V_L = fluid velocity, ft/sec
- μ = dynamic fluid viscosity, cP

therefore:

$$N_{\text{Re}} = 7734[(1.020(2.832)(9.615))/1.20] = 179,005.193$$

$$f = 0.25/\{\log[(0.00006/3.7(2.832)) + (5.74/(178999.193^{0.9})^2)]\} = 0.01605$$

$$P_{\text{avg}} = 2700 + [(0.0000115(0.01605)(6426^2)(1.020)(4297))/2.832^5] - (0.43316(1.020)(4297)) = 984.87 \text{ psi}$$



10.0.0 (j) Land and Mineral Description

10.1.0 (j) Surface Ownership

Please see Exhibit 15 for a map of surface ownership within the area of review the proposed Allen 10-31-22-27-H1 injection project. The land ownership description within the area of review is as follows:

geocode: 23-1924-34-1-01-01-0000
S34, T10 N, R31 E, ACRES 320.5, E2
John Raymond Adams
PO Box 273
Melstone, MT 59054-0273

geocode: 29-1925-35-1-01-01-1636
S35, T10 N, R31 E, ALL LESS CANAL
John Raymond Adams
PO Box 273
Melstone, MT 59054-0273

geocode: 29-1925-26-3-01-01-1480
S26, T10 N, R31 E, PT N2 S OF DIAGONAL LINE
FROM NW CRNR TO SE CRNR OF NE, SE, E2E2SW
John Raymond Adams
PO Box 273
Melstone, MT 59054-0273

geocode: 29-1925-22-4-01-01-1274
S22, T10 N, R31 E, SE, LESS 16 AC IN NWSE,
W2NW
Dustin K Allen
PO Box 244
Melstone, MT 59054-0244

geocode: 29-1925-26-3-02-01-0000
S26, T10 N, R31 E, W2SW, W2E2SW
Bergin Farm & Ranch LLC
PO Box 49
Melstone, MT 59054-0049

geocode: 29-1925-27-1-01-01-1628
S27, T10 N, R31 E, ALL LESS CANAL
Bergin Farm & Ranch LLC
PO Box 49
Melstone, MT 59054-0049

geocode: 29-1925-26-1-01-01-1160
S26, T10 N, R31 E, PT N2 NE OF DAIGONAL
LINE FROM NW CRNR TO SE CRNR
Eric B & Betty L Hjelvik Trustees
PO Box 313
Melstone, MT 59054-0313

geocode: 29-1925-23-1-01-01-1476
S23, T10 N, R31 E, N2, SW
Eric B & Betty L Hjelvik Trustees
PO Box 313
Melstone, MT 59054-0313

Pursuant to Rule 36.22.1410, Administrative Rules of Montana, Cardinal Oil, LLC has notified, in writing, all the surface owners within the area of review. Exhibits 16 through 19 contain additional information about notifications, including published public notices, for the Allen 10-31-22-27-H1 injection project.

10.2.0 (j) Leasehold Owners

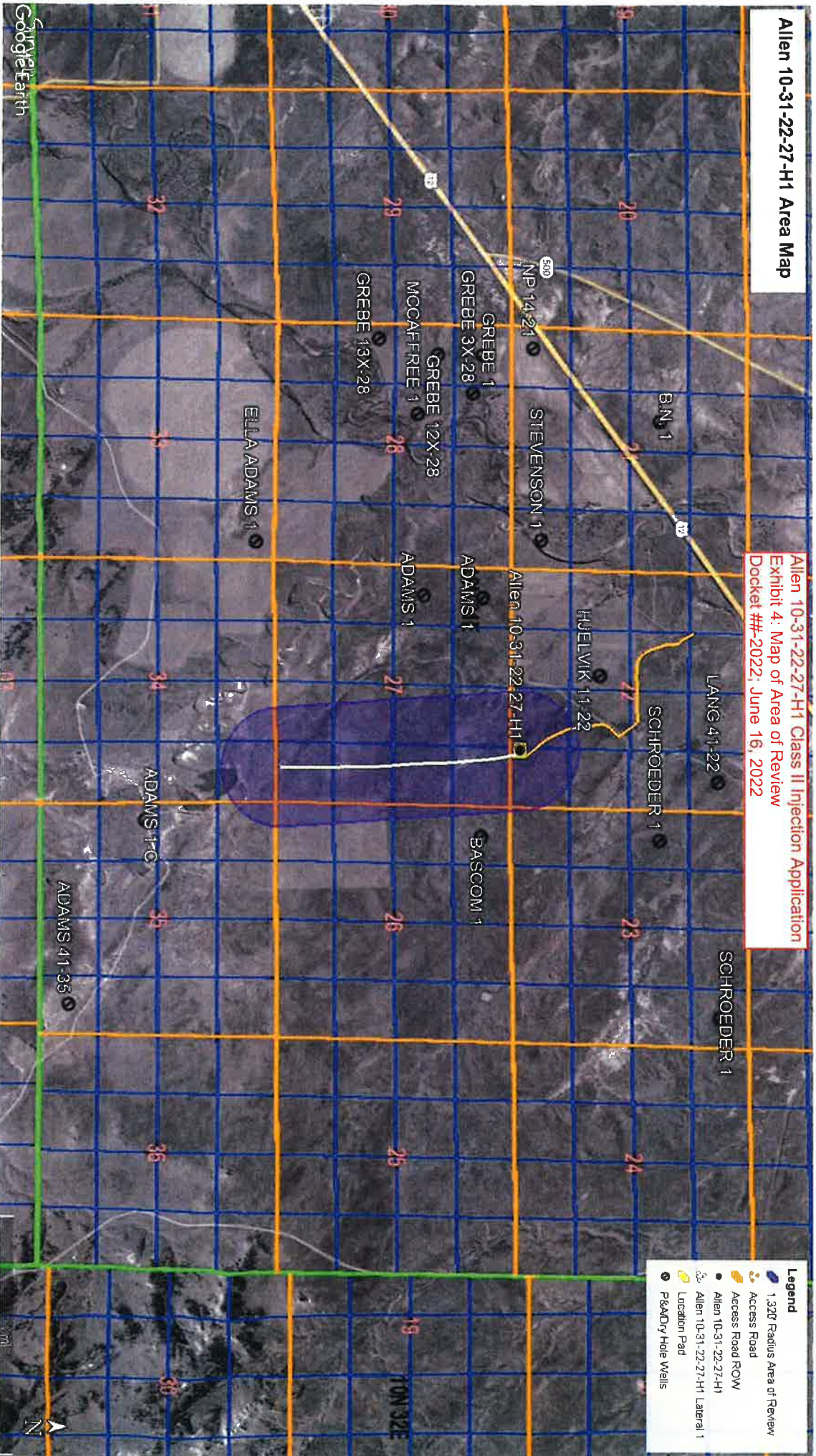
All minerals, relative to the Heath formation, are leased within the area of review, and a list of leasehold owners is given below:

Cardinal Oil, LLC
2650 Overland Avenue
Billings, MT 59102

Bluebird Energy, LLC
2650 Overland Avenue
Billings, MT 59102

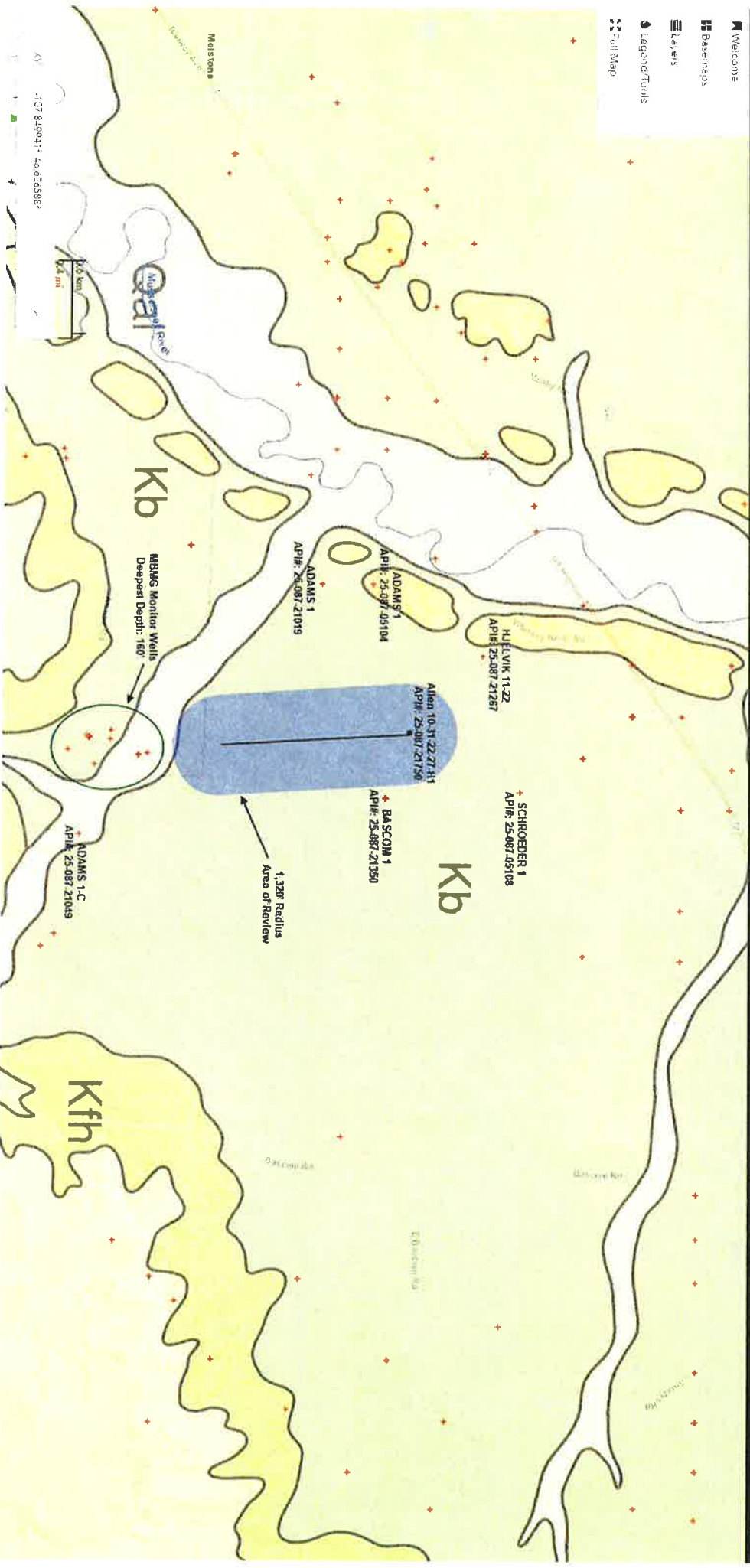
Allen 10-31-22-27-H1 Area Map

Allen 10-31-22-27-H1 Class II Injection Application
Exhibit 4: Map of Area of Review
Docket #-2022; June 16, 2022



Allen 10-31-22-27-H1 Class II Injection Application
Exhibit 7 - MBMG Map of Area of Review
Docket #-2022: June 16, 2022

- Welcome
- Basemaps
- Layers
- Legend/Tutorials
- Full Map



Company: Cardinal Oil LLC

Well: Allen 10-31-22-27-H1

Field: Sumatra (Heath)

County: Rosebud State: Montana

Platform Express
Triple Combo

County: Rosebud
Field: Sumatra (Heath)
Location: 242' FSL & 1253'FEL
Well: Allen 10-31-22-27-H1
Company: Cardinal Oil LLC

Location:	242' FSL & 1253'FEL Sec: 22, T10N, R31E	Elev.:	K.B. 2949.60 ft G.L. 2923.60 ft D.F. 2948.60 ft
Permanent Datum:		Ground Level	2923.60 f
Log Measured From:	Kelly Bushing	Elev.:	26.00 ft above Perm. Datum
Drilling Measured From:	Kelly Bushing		
API Serial No.	25-087-21750	Section:	22
		Township:	10N
		Range:	31E

Logging Date	10-Nov-2020
Run Number	1A
Depth Driller	5407.00 ft
Schlumberger Depth	5372.00 ft
Bottom Log Interval	5372.00 ft
Top Log Interval	625.00 ft
Casing Driller Size @ Depth	9.625 in @ 630.00 ft
Casing Schlumberger	625 ft
Bit Size	8.75 in
Type Fluid In Hole	WBM
Density	9.6 lbm/gal
Fluid Loss	14 cm ³
PH	8
Source of Sample	Active Tank
RM @ Meas Temp	0.28 ohm.m @ 50 degF
RMF @ Meas Temp	0.24 ohm.m @ 50 degF
RM @ Meas Temp	0.32 ohm.m @ 50 degF
Source RMF	Calculated
RM @ BHT	0.1 @ 146.6
RMF @ BHT	0.09 @ 146.6
Max Recorded Temperatures	146.6 degF
Circulation Stopped	11-Nov-2020 04:00:00
Logger on Bottom	11-Nov-2020 09:57:00
Unit Number	9108
Location:	Fort Morgan, CO
Recorded By	Jennifer Shtull / Scotty Strickland
Witnessed By	Jarid Allen

Allen 10-31-22-27-H1 Class II Injection Application
Exhibit 8: GR/AIR/CND Open Hole Strip Log
Docket ##-2022; June 16, 2022

Disclaimer

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

Contents

1. Header
2. Disclaimer
3. Contents
4. Well Sketch
5. Borehole Size/Casing/Tubing Record
6. Remarks and Equipment Summary
7. Depth Summary
8. 1A 5" Triple Combo
 - 8.1 Integration Summary
 - 8.2 Software Version
 - 8.3 Composite Summary
 - 8.4 Log (TripleCombo-5)
 - 8.5 Parameter Listing
9. 1A Hig Repeat Resolution Pass 5" = 100'
 - 9.1 Integration Summary
 - 9.2 Software Version
 - 9.3 Composite Summary

Software Version

Acquisition System	Version
Maxwell 2020.1	10.1.205256.3100

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
1A	Log[4]:Up	Up	40.70 ft	5378.40 ft	11-Nov-2020 10:30:14 AM	11-Nov-2020 12:12:11 PM	ON	2.00 ft	No

All depths are referenced to toolstring zero

Log

Company: Cardinal Oil LLC Well: Allen 10-31-22-27-H1

1A: Log[4]:Up:S010

Description: HGNS standard resolution porosities for Platform Express Format: Log (TripleCombo-5) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 11-Nov-2020 13:28:13

Channel	Source	Sampling
AMF	AIT-M:AMIS:AMIS	12in
AT20	AIT-M:AMIS:AMIS	3in
AT30	AIT-M:AMIS:AMIS	3in
AT60	AIT-M:AMIS:AMIS	3in
AT90	AIT-M:AMIS:AMIS	3in
CALI	HDRS-H:HRCC-H:HRCC-H	1in
DPHZ	HDRS-H:HRMS-H:HRGD-H	2in
GR	EDTC-B:EDTC-B:EDTC-B	6in
NPOR	HGNS-H:HGNS-H:HGNS-H	6in
PEFZ	HDRS-H:HRMS-H:HRGD-H	2in
RXOZ	HDRS-H:HRMS-H:HRGD-H	2in
STIT	DepthCorrection	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

TIME_1900 - Time Marked every 60.00 (s)

Array Induction Two Foot Resistivity A90 (AT90) AIT-M		
0.2	ohm.m	2000
Array Induction Two Foot Resistivity A60 (AT60) AIT-M		
0.2	ohm.m	2000
Array Induction Two Foot Resistivity A30 (AT30) AIT-M		
0.2	ohm.m	2000
Array Induction Two Foot Resistivity A20 (AT20) AIT-M		
0.2	ohm.m	2000
Invaded Formation Resistivity filtered at 18 inches (RXOZ) HDRS-H		
0.2	ohm.m	2000
Array Induction Mud Resistivity Fully Calibrated (AMF) AIT-M		
0.02	ohm.m	200

Standard Resolution
Formation
Photoelectric Factor
(PEFZ) HDRS-H

0 10

Gas Effect

Standard Resolution Density Porosity (DPHZ)
HDRS-H

0.3 ft³/ft³ -0.1

Enhanced Thermal Neutron Porosity in
Selected Lithology (NPOR) HGNS-H

0.3 m³/m³ -0.1

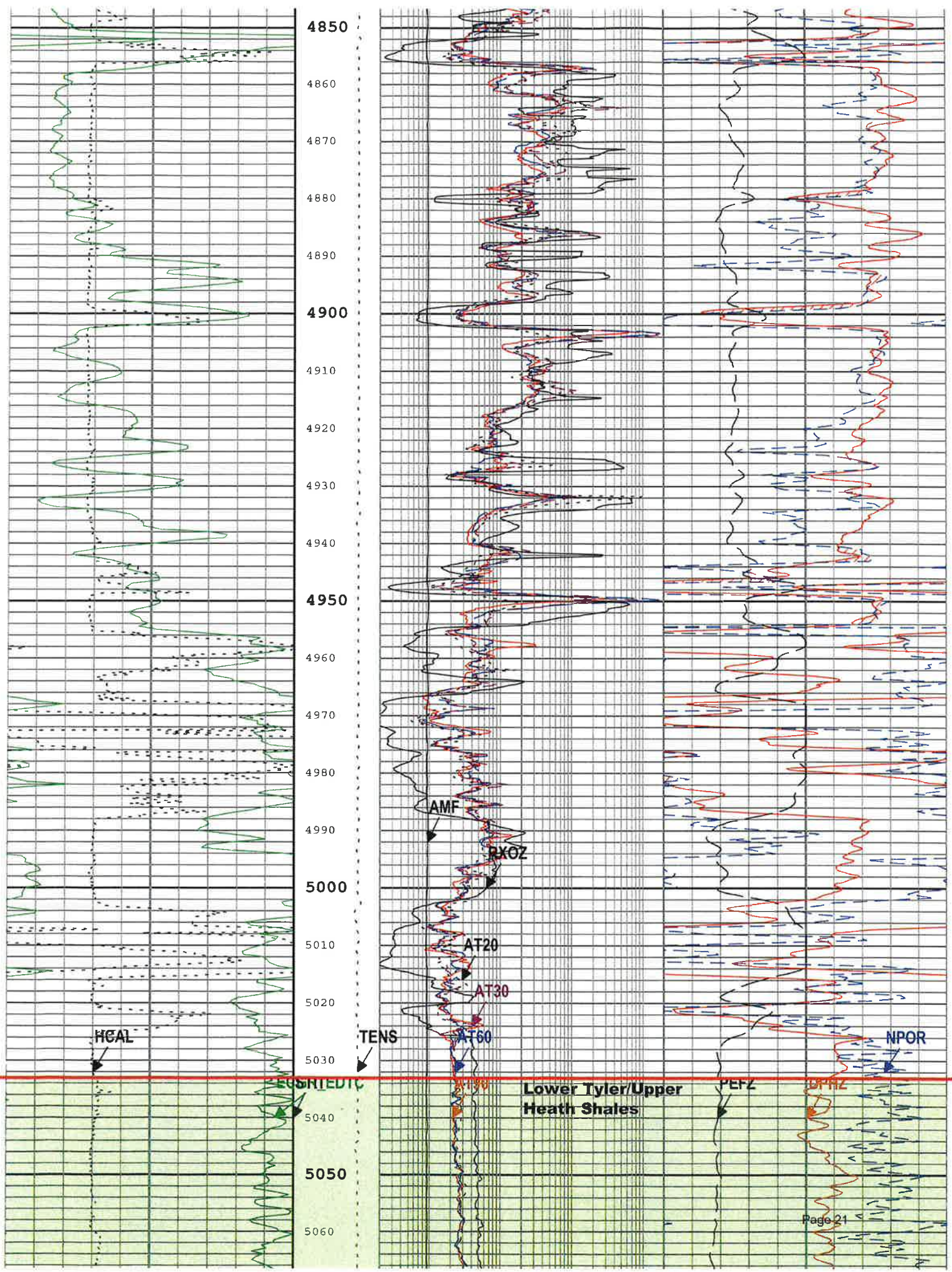
Stuck Tool
Indicator,
Total (STIT)

0 ft 50

Cable
Tension
(TENS)

10000 0
lbf

Gamma Ray (ECGR_EDTC) EDTC-B		
0	gAPI	150
Caliper (HCAL) HDRS-H		
6	in	16





NORAM

WELLSITE SERVICES

Billings, MT 406-652-3922

LITHOLOGY STRIP LOG

WellSight Systems

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Allen 10-31-22-27-H1 ST3
Well Id: 25-087-02715-03-00
Location: Rosebud Co., MT

License Number:

Spud Date: 11/5/2020

Surface Coordinates: 242' FSL, 1253' FEL Sec. 22 T10N R31E

Bottom Hole 225' FSL, 822' FEL Sec. 27 R10N R31E

Coordinates:

Ground Elevation (ft): 2923'

Logged Interval (ft): 4498'

Formation: Swift, Rierdon, Piper, Tyler, Amsden, Tyler, Heath (primarily Van Dusen)

Type of Drilling Fluid: OBM

K.B. Elevation (ft): 2949'

To: 10218' Total Depth (ft): 10218'

Region: Sumatra

Drilling Completed: 11/29/2020

Allen 10-31-22-27-H1 Class II Injection Application
Exhibit 9: Strip of Horizontal Mud Log
Docket ##-2022; June 16, 2022

Printed by WellSight LogViewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Cardinal Oil LLC
Address: 2650 Overland Ave
Billings, MT 59102

GEOLOGIST

Name: Peter Abel, Ian Shaw, Darcy Klessens
Company: P. Abel Consulting, Noram
Address: 7968 Scenic Hills Road
Bismarck, ND 58503

Cyclone 34

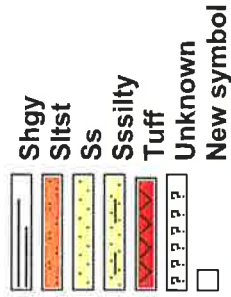
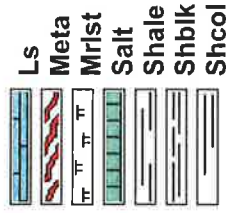
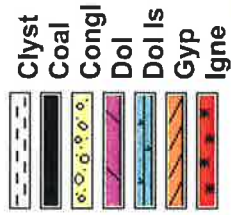
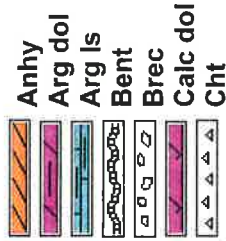
Rig

NorAm Gas Detection

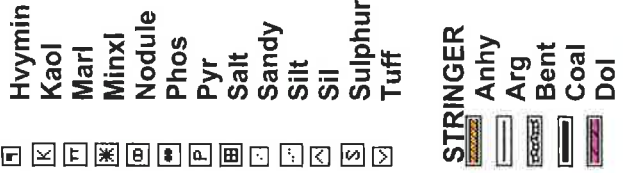
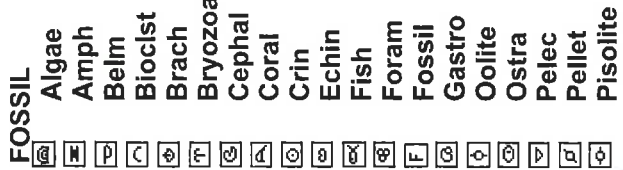
Gas Detection

225' FSL, 822' FEL Sec. 27 R10N R31E

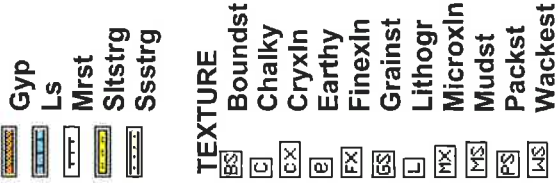
BHL



ROCK TYPES



ACCESSORIES



INTERVALS

Core
Dst

EVENTS

Rft
Sidewall
Bit change
conn

OIL SHOWS

Even
Spotted
Ques
Dead

POROSITY TYPE

Earthy
Fenest

OTHER SYMBOLS

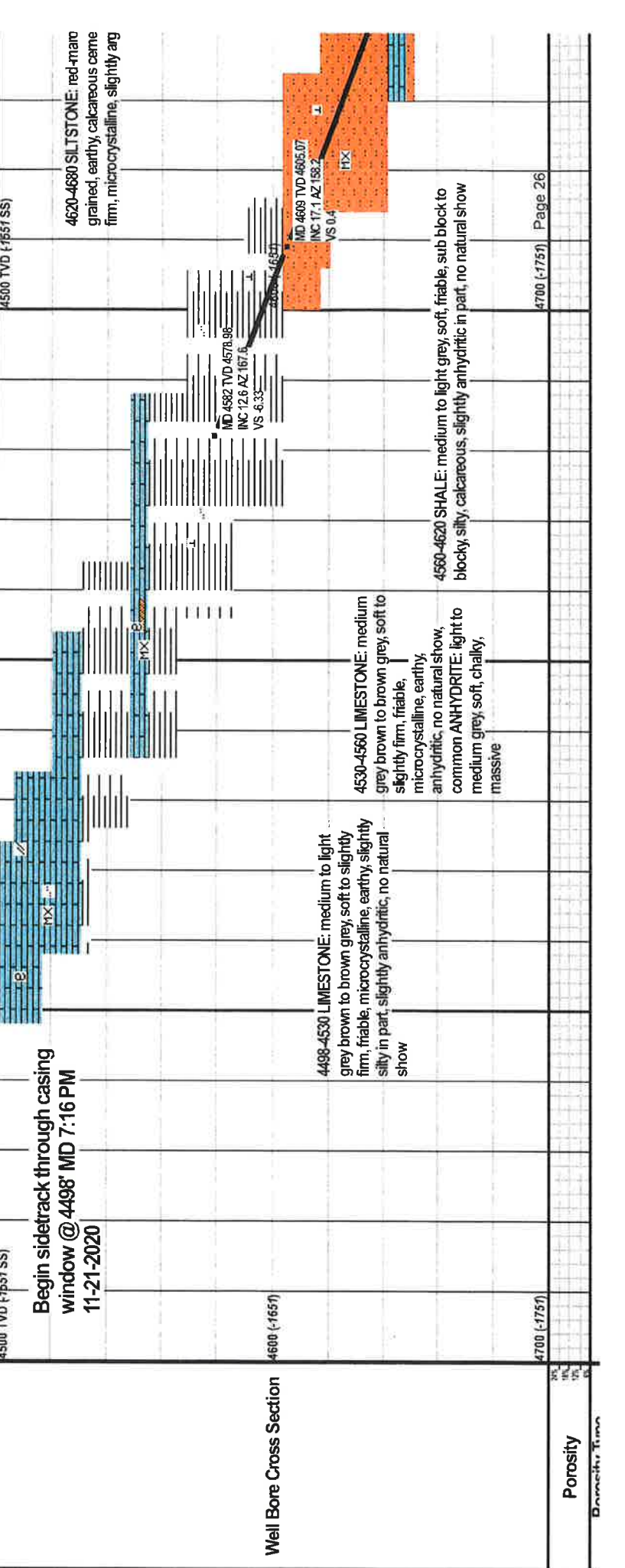
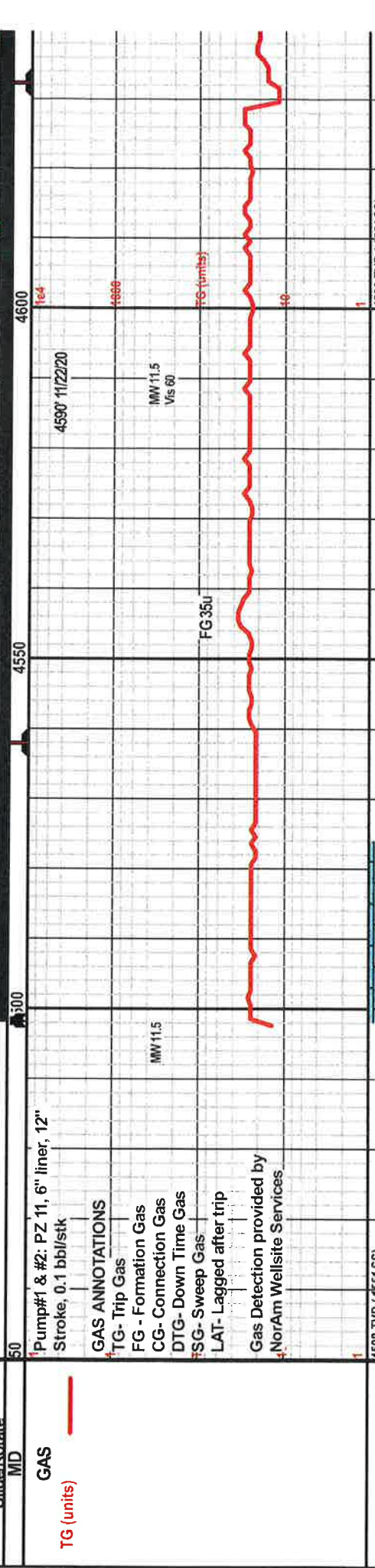
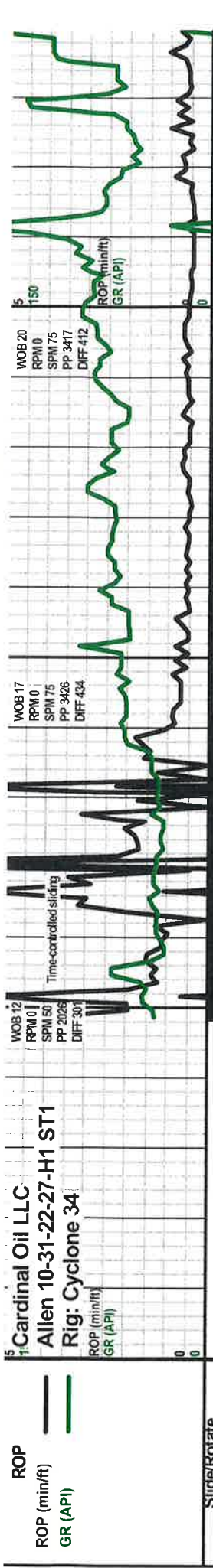
Fracture
Inter
Moldic
Organic
Pinpoint
Vuggy

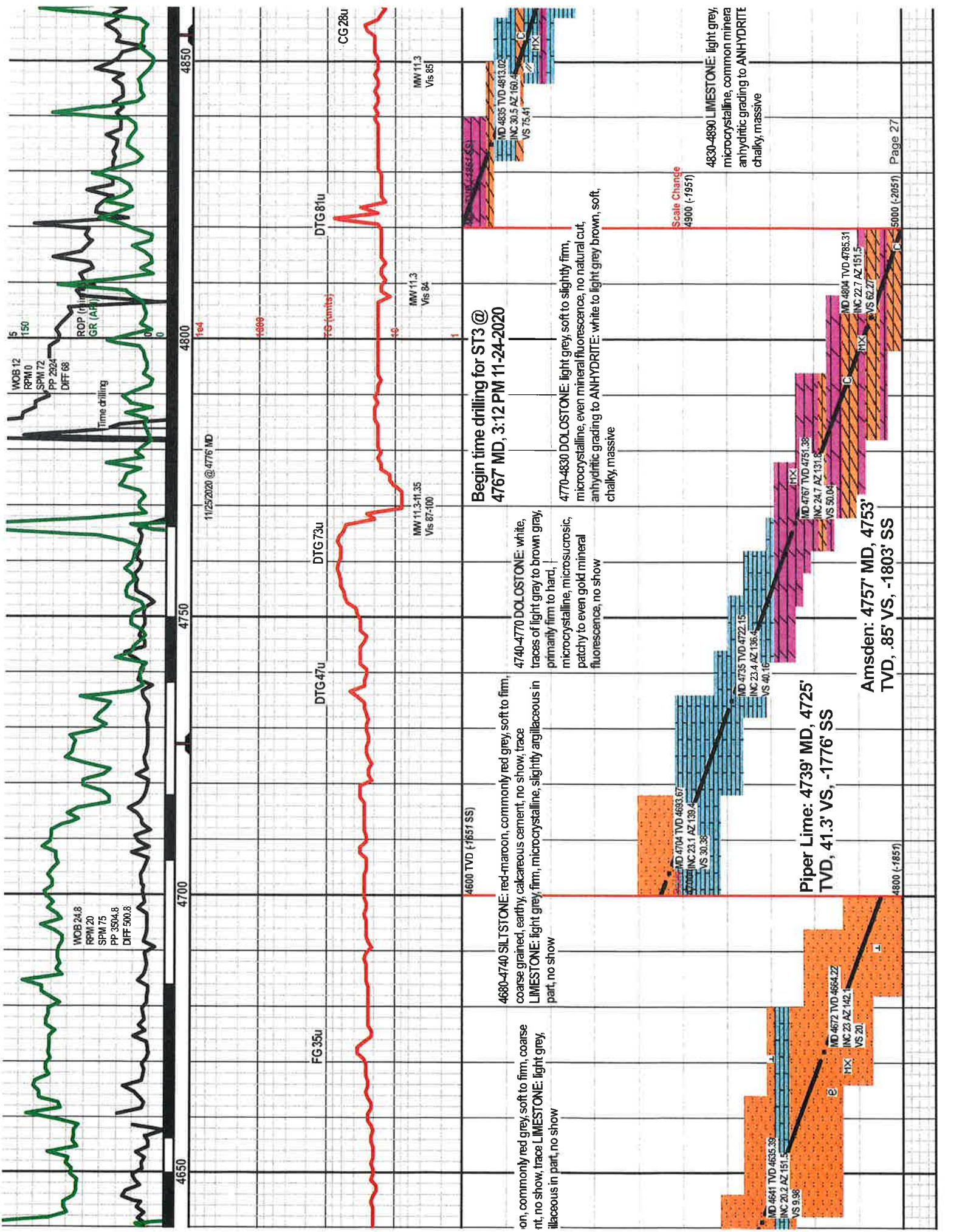
ROUNDING
Rounded

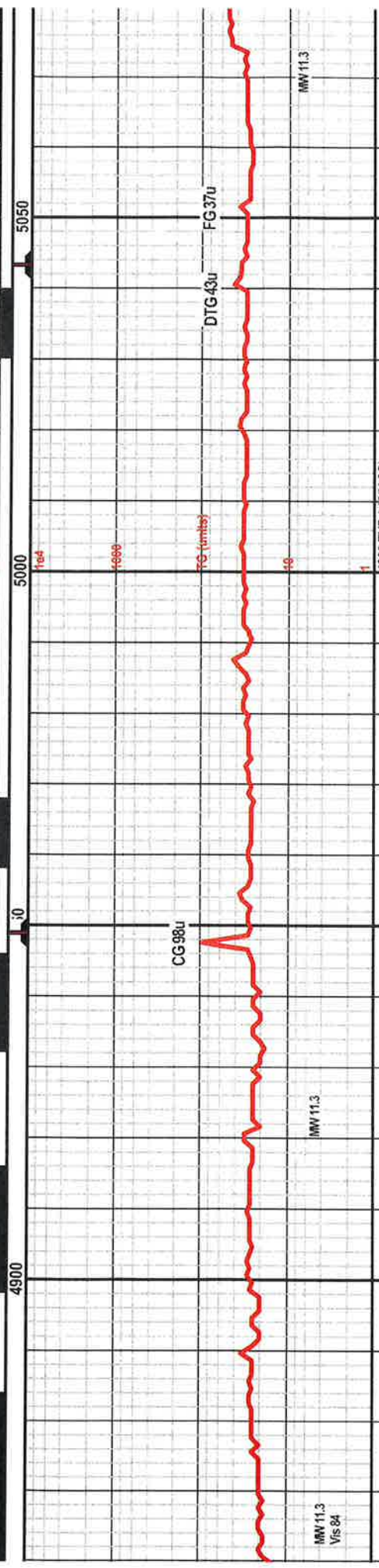
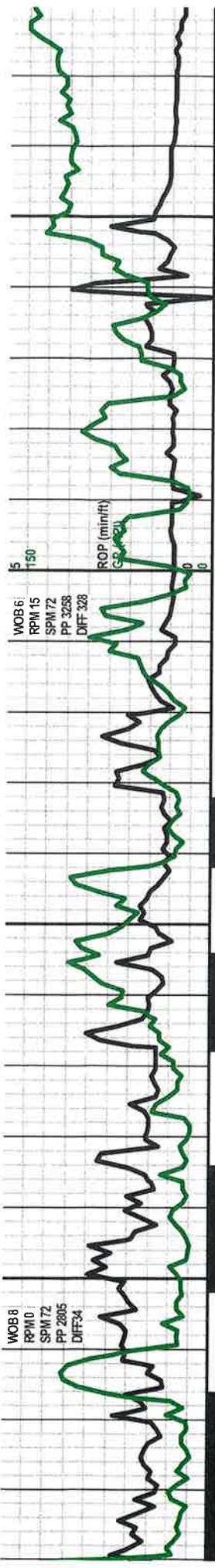
Subrmd
Subang
Angular

SORTING

Well
Moderate
Poor







Upper Tyler: 4958' MD, 4904' TVD, 155.2' VS, -1804' SS

4980-5040 LIMESTONE: medium to light grey to grey brown, firm, friable, microcrystalline, argillaceous, no natural show, trace CLAYSTONE: red, soft, sub blocky to sub platy

4950-4980 LIMESTONE: medium grey to grey brown, firm to hard, brittle in part, microcrystalline, argillaceous, no natural show

4890-4950 LIMESTONE: light grey to grey brown, firm, brittle in part, microcrystalline, anhydritic in part, dolomitic in part, trace mineral fluorescence, no natural show

5040-5100 LIMESTONE: light grey brown, firm microcrystalline, argillaceous, coal fragments trace CLAYSTONE: red, soft, sub blocky to sub platy

4800 TVD (-1851 SS)

4900 (-1951)

5000 (-2051)

CC 98u

DTG 43u

FG 37u

MW 11.3

MW 11.3

MW 11.3

MD 4867 TVD 4839.38
INC 33.4 AZ 160.4
VS 92.93

MD 4888 TVD 4862.83
INC 43.3 AZ 160.4
VS 112.56

MD 4930 TVD 4895.39
INC 47 AZ 162.5
VS 134.63

MD 4961 TVD 4905.89
INC 50.2 AZ 164
VS 157.41

MD 4993 TVD 4925.65
INC 53.5 AZ 164.3
VS 182.14

MD 5024 TVD 4944.03
INC 53.8 AZ 164.8
VS 206.71

MD 5066 TVD 4982.38
INC 56.2 AZ 163.9
VS 232.48

ROP (min/ft)

G.P. (min/ft)

WOB 6
RPM 15
SPM 72
PP 3258
DIFF 328

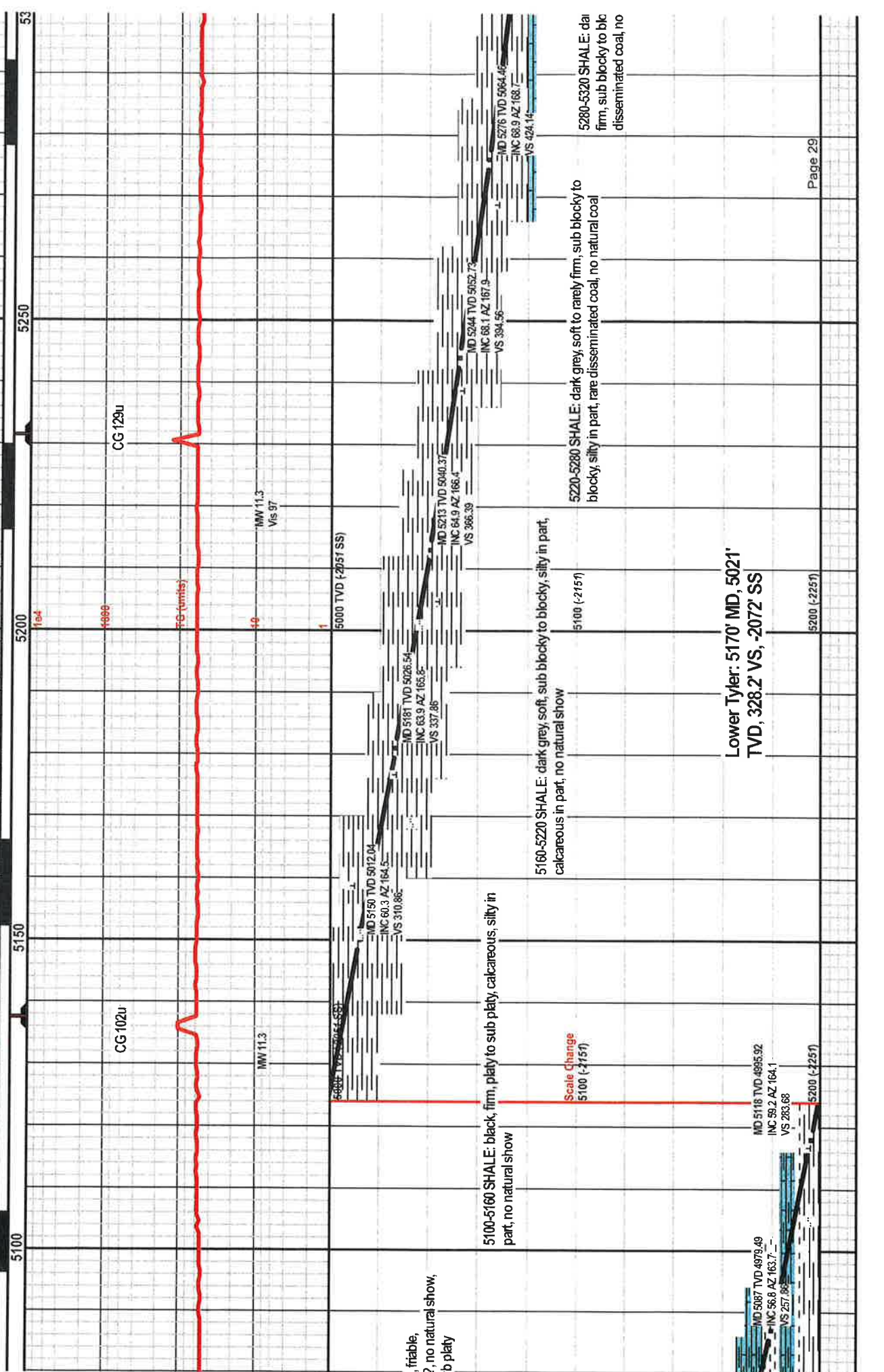
WOB 6
RPM 15
SPM 72
PP 3258
DIFF 328

5050

5000

4900

Page 28



Lower Tyler: 5170' MD, 5021' TVD, 328.2' VS, -2072' SS

Scale Change
5100 (-215f)



LABORATORY ANALYTICAL REPORT

Company:	Cardinal Oil	Report Date:	4/6/2021
Project:	PW Allen 10-31-22-27-H1	Date Received:	4/2/2021
Location:	NOT GIVEN	Collection Date:	4/1/2021
Laboratory ID:	B21040189-001	Matrix:	Water
Sample ID:	Allen 10-31-22-27-1H Swab Tank Water		

CATIONS	mg/L	meq/L	ANIONS	mg/L	meq/L
Calcium	160	7.98	Bicarbonate	1,169	19.15
Magnesium	33	2.72	Carbonate	<1	<0.03
Potassium	23	0.58	Hydroxide	<1	<0.06
Sodium	4,306	187.28	Chloride	2,055	57.97
Iron, Dissolved	0.76	0.03	Sulfate	6,500	135.33
Barium, Dissolved	<0.1	<0.01			
Strontium, Dissolved	6.48	0.15			
SUM +	4,528	198.74	SUM -	9,724	212.45

Solids

Total Dissolved Solids, Calc	13,700 mg/L
Total Solids, NaCl equivalents	10,171 mg/L
Chloride as NaCl	3,388 mg/L
NaCl % of Total Dissolved Solids	18.6 %

Sample Conditions

Temperature, °F	68 °F
pH, s.u.	8.24 s.u. H
Accuracy	4.06 Sigma
Cation/Anion Balance	-3.36 %

Other Properties

Calcium Hardness as CaCO ₃	399 mg/L
Magnesium Hardness as CaCO ₃	136 mg/L
Total Hardness as CaCO ₃	535 mg/L

Ionic Strength	0.279 μ
Specific Gravity, Calc.	1.009 g/cc
Resistivity, 68°F	0.655 ohm meter

Microbiological

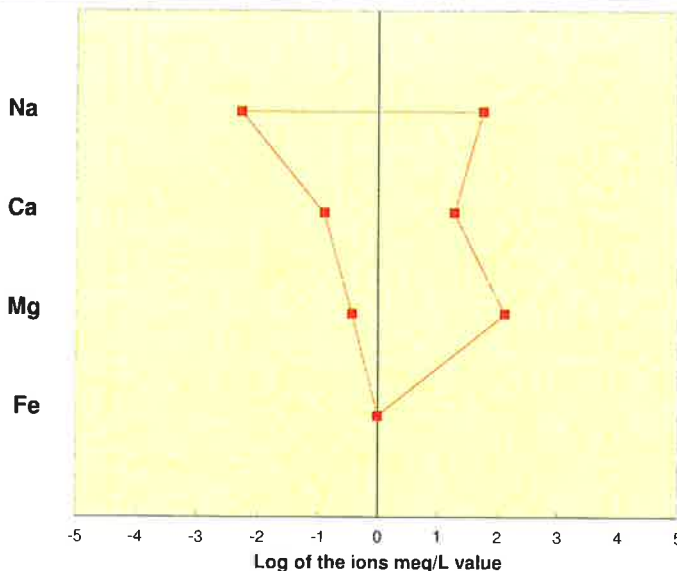
Sulfate Reducing Bacteria NA col/mL

Scaling Conditions

CaCO₃: Yes CaSO₄: No
BaSO₄: Yes SrSO₄: Yes

Water Analysis Pattern

Probable Mineral Residue, Dry



Compound	mg/L
NaCl	2,551
Na ₂ SO ₄	11,155
CaSO ₄	0
CaCO ₃	399
MgSO ₄	0
KCl	43
SrSO ₄	14
BaSO ₄	0
NaHCO ₃	710
MgCO ₃	115
CaCl ₂	0
MgCl ₂	0

Allen 10-31-22-27-H1 Class II Injection Application
Exhibit 10: Allen 10-31-22-27-H1 Production Water
Analysis
Docket #-2022; June 16, 2022

E - Estimated value. Result exceeds the instrument upper quantitation limit, Therefore Schlumberger Gen-9 Value Appears.
H - Analysis performed past recommended holding time.
NA - Not Analyzed



Radial Cement Bond Log W/ Gamma Ray CCL

Company Cardinal Oil LLC
Well Allen 10-31-22-27-H1
Field Sumantra (Heath)
County Rosebud
State Montana Country USA

Company Cardinal Oil LLC
Well Allen 10-31-22-27-H1
Field Sumantra (Heath)
County Rosebud
State Montana Country USA

Location: API # : 33-087-XXXXX-00-00
SEC 22 TWP 10N RGE 31E
242' FSL & 1253' FEL

Other Services
Set & Fish
RBP
Elevation
K.B. 2949'
D.F.
G.L. 2923'

Permanent Datum Ground Level Elevation 2923'
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing 26'

Date 12-12-2020

Run Number One
Depth Driller 10366'

Bottom Logged Interval TD Not Logged
Top Log Interval Surface

Open Hole Size 8 3/4"

Type Fluid NA

Density / Viscosity NA

Max. Recorded Temp. NA

Estimated Cement Top 1715'

Time Well Ready ROA 1145

Time Logger on Bottom 1145

Equipment Number 645

Location Williston, ND

Recorded By L. Allard

Witnessed By

Borehole Record		Tubing Record					
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9.625"	36#	Surface	615'
Prot. String	7"	29#	Surface	5478'
Production String	4.5"	11.6#	Surface	10218'

Liner	Size	Wgt/Ft	Top	Bottom
	4.5"	11.6#	Surface	10218'

<<< Fold Here >>>


All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Allen 10-31-22-27-H1 Class II Injection Application
Exhibit 12: RCBL Strip Log
Docket #-2022; June 16, 2022
Radial Cement Bond Log is Not Depth Correlated

Thank you for using KLX Energy Services

KLX Crew: W. Yates
J. Ramsey

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
ErrCt	19.55		HWT_DRC-DRC01	2.77	1.69	10.00

BHTEMP_Src TEMP	BOREID in 8.75	BOTTEMP degF 240	CASEOD in 7	CASETHCK in 0.408	CASEWGHT lb/ft 29	MAXAMPL mV 62.1651	MINAMPL mV 1
MINATTN db/ft 0.8	PERFS No	PPT usec 0	SRFTEMP degF 0	TDEPTH ft 0			

4297.00 ft - Bottom

CASEOD in 4.5	CASETHCK in 0.25	CASEWGHT lb/ft 11.6
---------------------	------------------------	---------------------------

Variable Description

BHTEMP_Src : BHTEMP Input Source Selector
 BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 CASEWGHT : Casing Weight
 MAXAMPL : Maximum Amplitude

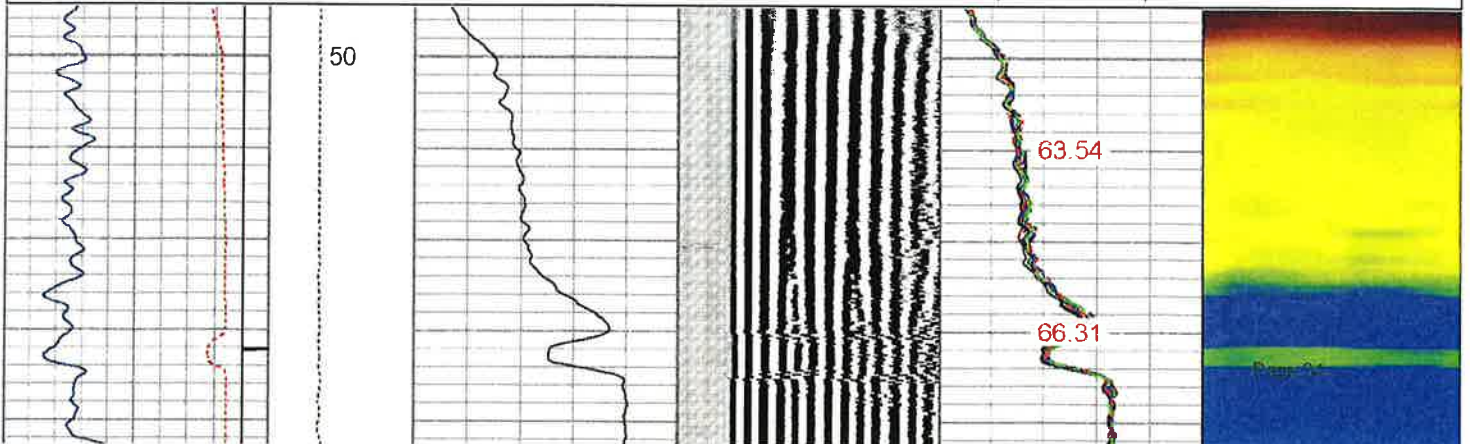
MINAMPL : Minimum Amplitude
 MINATTN : Minimum Attenuation
 PERFS : Perforation Flag
 PPT : Predicted Pipe Time
 SRFTEMP : Surface Temperature
 TDEPTH : Total Depth

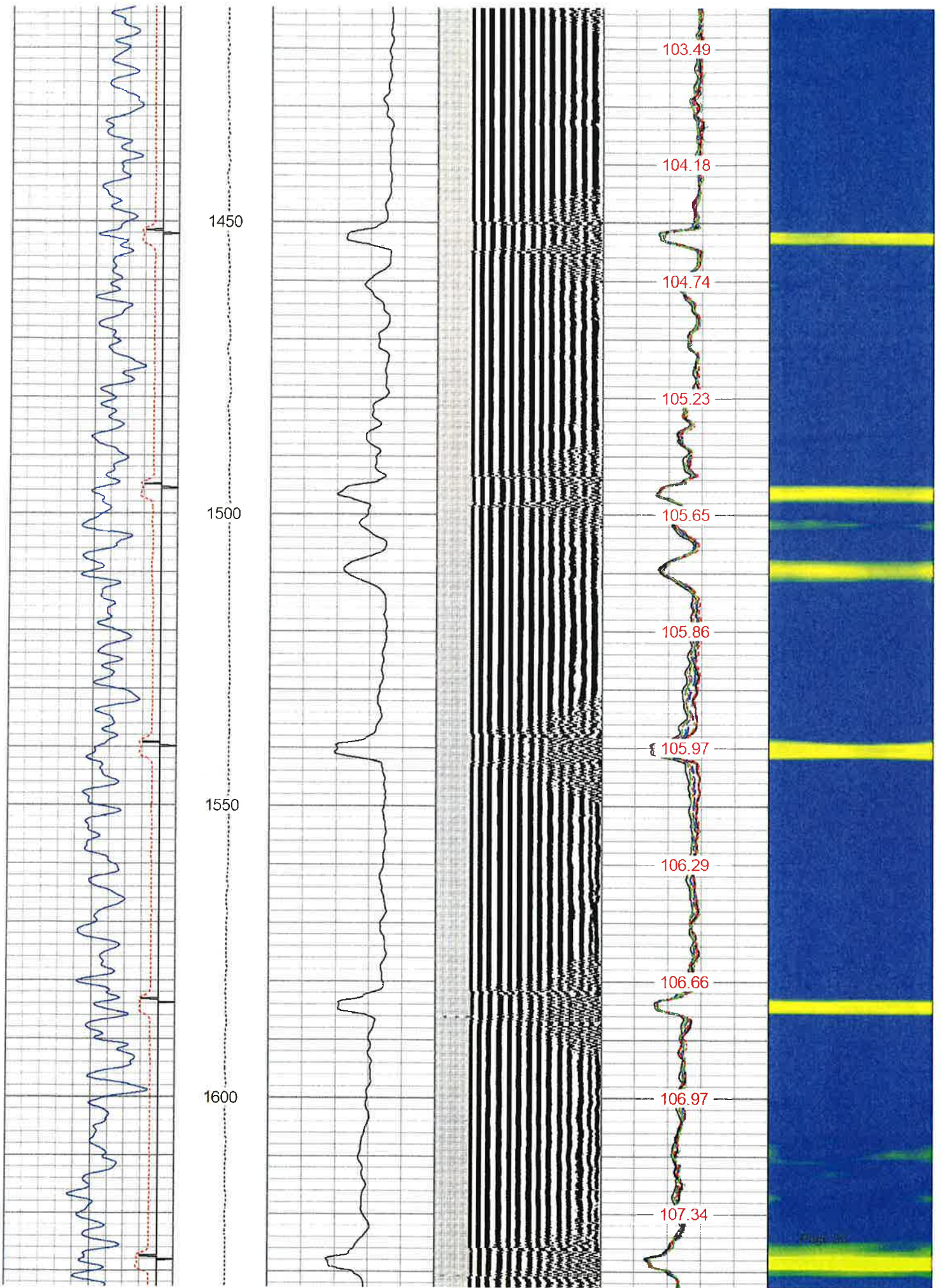


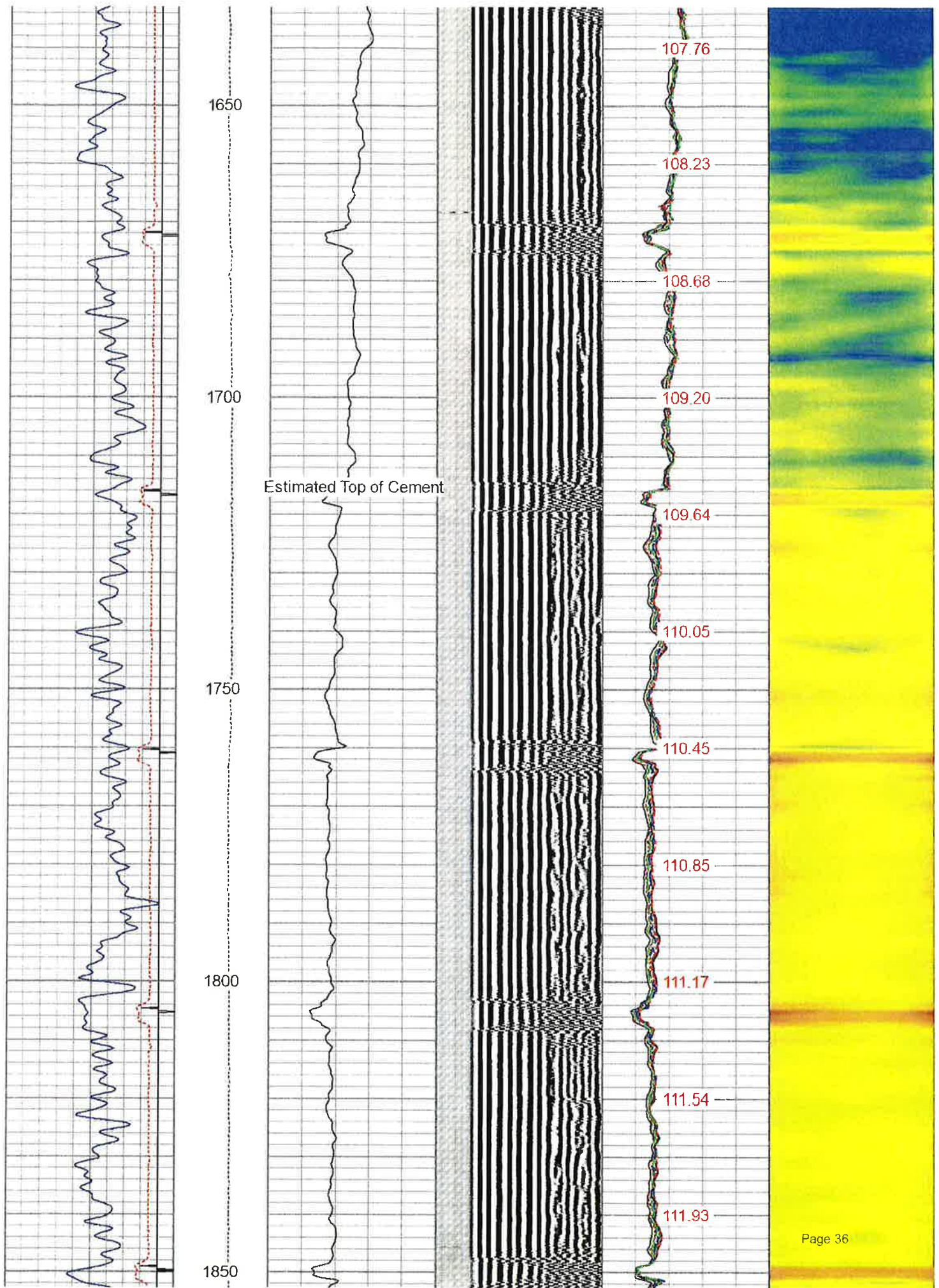
Main Pass

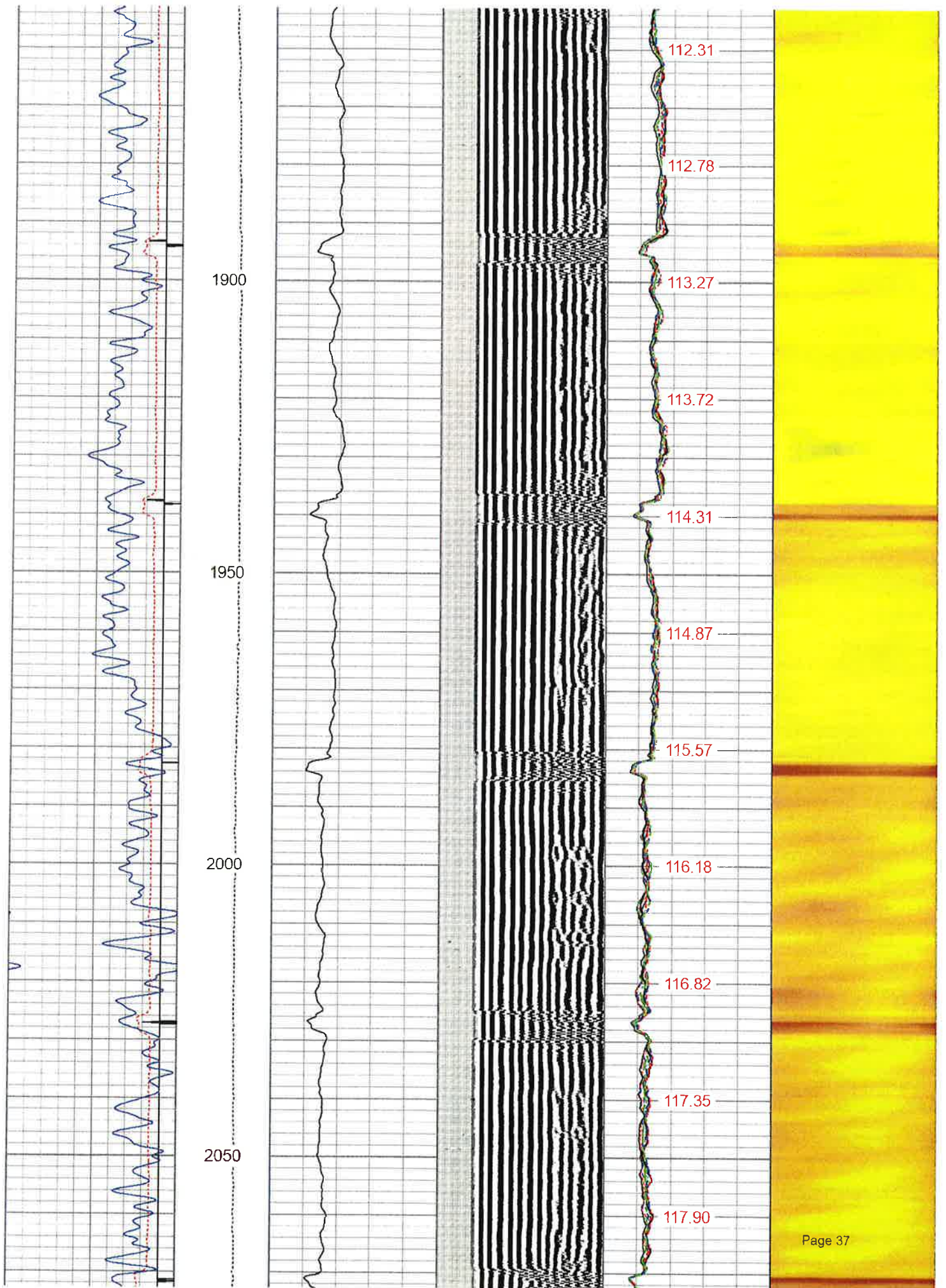
Database File cardinal12-12-20.db
 Dataset Pathname pass12.1
 Presentation Format rcbklx
 Dataset Creation Sat Dec 12 13:17:54 2020
 Charted by Depth in Feet scaled 1:240

3 FtTravel Time	LTEN	0	AMP (mV)	100	200	VDL (usec)	1200	0	AMPS1	150	1	Cement Map	8
380 (usec)	280	0	AMPx10 (mV)	10				0	AMPS2	150			
-9 CCL	1							0	AMPS3	150			
Gamma Ray								0	AMPS4	150			
0 (GAPI)	150							0	AMPS5	150			
								0	AMPS6	150			
								0	AMPS7	150			
								0	AMPS8	150			
TEMP													









Allen 10-31-22-27-H1 Class II Injection Application
Exhibit 13: Proposed Wellbore Diagram
Docket #-2022: June 16, 2022



WELL: **Allen 10-31-22-27-H1** FIELD: **Wildcat Rosebud, N**

LOCATION: 242 FSL, 1253rd FEL, SESE Sec. 22, T10N, R31E, Rosebud Co., MT
 Latitude: 46.611583; Longitude: -107.800045

ACCTG #: API NO: 25-087-21750-00-00
 MT PERMIT #: 32556

ELEVATION: KB: 2,949' STATUS: **PROPOSED**
 GL: 2,923' H2S: TBD

SPUD DATE: 11/05/20 CMP DATE: 1/18/2021
 ROTARY TD: 10,218' PBDT: 10,068' (WS Sub)

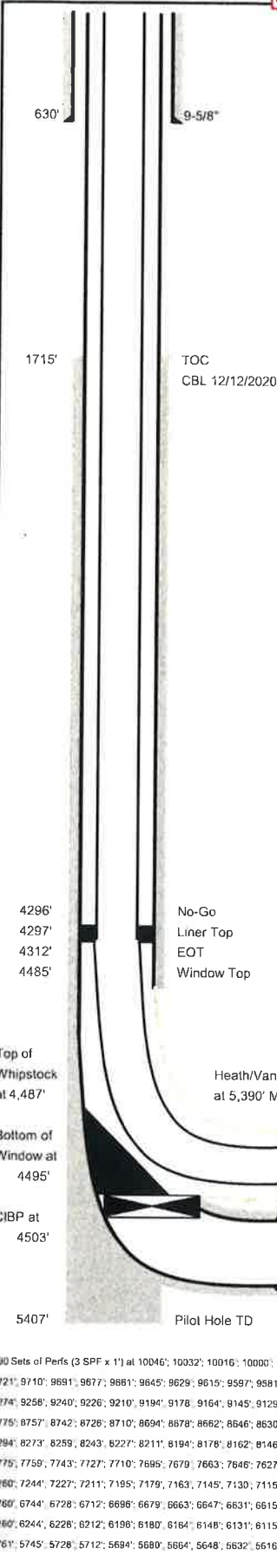
WELLHEAD: C-22-BP SOW 9-5/8"x11"-5M, TC 11"-5Mx7-1/16"-10M, 7-1/16"-10M B1 adapter

SURF CSG: 15 jts of 9-5/8", 36#, J-55, LT&C set at 630'. Cmt'd to surface with 200 sx Class C (12-1/4" borehole). Cement to surface.

PROD CSG: 117 jts of 7", 29#, P-110, LT&C set at 5,179'. Cmt'd with 460 sx Class G (TOC @ 1,715'). Full returns. Window at 4,485' to 4,495'

LINER: 4-1/2", 11.6#, P-110, BT&C csg set at 10,080'.
 Liner Top set at 4,297'.
 Cmt'd with 345 sx Class G.

OPEN HOLE: Pilot Hole TD at 5,407', Plugged Back to 4,466'



Casing Detail		Date Run: 11/14/20
Size/Grade/Description	Run Depth	
7", 29#, P-110, BTC	5179'	

Tubing Detail		Date Run: TBD
Size/Grade/Description	Depth (Top)	
129 jts 3-1/2" IPC L-80 tubing		
5-3/4"x0.50" no-go sub	4296'	
5.00"x15' Ni plated seal assembly		
EOT	4312'	

Rods/Pump		Date Run: NA
Size/Grade/Description	Length	
1-1/2"x30' polish rod	30'	
1 - 7/8"x8' KD rod sub	8'	
1 - 7/8"x6' KD rod sub	6'	
1 - 7/8"x4' KD rod sub	4'	
68 - 7/8" KD rods	1700'	
92 - 3/4" KD rods	2300'	
3 - 1-1/2" K bar	82.5'	
1.50"x24' RXBM rod pump	24'	

Pump Type: quintuplex

#1 Pump: NOV 165T-5L
 Plungers: 3.50"

#2 Pump: #N/A
 Plungers: #N/A

Updated: 5/11/2022 By: Danny Green

Top of Whipstock at 4,487'

Bottom of Window at 4,495'

CIBP at 4,503'

5407' Pilot Hole TD

Heath/Van Dusen Top at 5,390' MD; 5,095' TVD

11 Frac Plugs at 9565', 9413', 9250', 9091', 8928', 8767', 8606', 8443', 8283', 8107', 7953'

Liner Ruptured at 7,915'

Top of Fish at 7,905'

3.58"x3.00"x2' wash pipe

3.63"x3.00"x3' wash over shoe with two finger baskets

TD 6" Hole at 10,218' MD; 5,207' TVD
 88.80° Inc, 180.90° Az

4-1/2" Liner at 10,080' MD

200 Sets of Perfs (3 SPFF x 1") at 10046; 10032; 10016; 10000; 9980; 9967; 9951; 9935; 9919; 9907; 9886; 9871; 9855; 9838; 9822; 9806; 9790; 9773; 9758; 9742;
 9721; 9710; 9691; 9677; 9661; 9645; 9629; 9615; 9597; 9581; 9555; 9544; 9532; 9518; 9500; 9484; 9468; 9452; 9436; 9424; 9403; 9387; 9371; 9355; 9339; 9323; 9307; 9290;
 9274; 9258; 9240; 9226; 9210; 9194; 9178; 9164; 9145; 9129; 9113; 9097; 9082; 9065; 9049; 9033; 9016; 9000; 8984; 8968; 8950; 8936; 8919; 8904; 8888; 8874; 8855; 8839; 8823; 8807; 8791;
 8775; 8757; 8742; 8728; 8710; 8694; 8678; 8662; 8646; 8630; 8614; 8598; 8581; 8565; 8549; 8533; 8517; 8500; 8485; 8468; 8451; 8434; 8420; 8404; 8388; 8370; 8356; 8340; 8323; 8307;
 8294; 8273; 8259; 8243; 8227; 8211; 8194; 8178; 8162; 8146; 8130; 8099; 8081; 8068; 8066; 8049; 8033; 8017; 7998; 7969; 7944; 7932; 7920; 7904; 7888; 7872; 7856; 7840; 7824; 7808; 7791;
 7775; 7759; 7743; 7727; 7710; 7695; 7679; 7663; 7648; 7627; 7614; 7598; 7585; 7566; 7552; 7534; 7518; 7501; 7485; 7467; 7453; 7437; 7422; 7405; 7389; 7372; 7356; 7340; 7324; 7306; 7292; 7276;
 7260; 7244; 7227; 7211; 7195; 7179; 7163; 7145; 7130; 7115; 7098; 7082; 7066; 7050; 7034; 7018; 7002; 6988; 6970; 6953; 6937; 6921; 6903; 6889; 6873; 6857; 6841; 6824; 6808; 6792; 6776;
 6760; 6744; 6728; 6712; 6696; 6679; 6663; 6647; 6631; 6615; 6599; 6583; 6567; 6550; 6534; 6518; 6502; 6486; 6470; 6454; 6438; 6422; 6405; 6389; 6373; 6357; 6341; 6325; 6309; 6293; 6276;
 6260; 6244; 6228; 6212; 6196; 6180; 6164; 6148; 6131; 6115; 6099; 6083; 6067; 6051; 6035; 6019; 6002; 5986; 5970; 5954; 5938; 5922; 5906; 5890; 5874; 5857; 5841; 5825; 5809; 5793; 5777;
 5761; 5745; 5728; 5712; 5694; 5680; 5664; 5648; 5632; 5616; 5598; 5583; 5567; 5551; 5533; 5520; 5503; 5487; 5471; 5454; 5438; 5422; 5406; 5390



Cardinal Oil, LLC
2650 Overland Avenue
Billings, MT 59102
406-259-2580

May 3, 2022

Dustin K. Allen
PO Box 244
Melstone, MT 59054-0244

Allen 10-31-22-27-H1 Class II Injection Application
Exhibit 16: Landowner Notification Letters
Docket #-2022; June 16, 2022

Re: Allen 10-31-22-27-H1 Notice of Application for a Class II Injection Well Permit
SESE-Section 22-T10N-R31E

Dear Mr. Allen,

Cardinal Oil, LLC proposes to convert the existing Allen 10-31-22-27-H1 oil well into a Class II water injection well. The well is located within and upon SESE Quarter-Quarter, Section 22, Township 10 North, Range 31 East, Wildcat Rosebud, N Field, Rosebud County, Montana.

The Allen 10-31-22-27-H1 is a horizontal Heath well that was completed on 1/18/2021. The well was drilled to a total measured depth of ten thousand two hundred eighteen feet (10,218') with a true vertical depth of approximately five thousand two hundred seven feet (5,207'). The well is currently uneconomic to produce, and Cardinal Oil, LLC is seeking utility in the wellbore. Produced water from nearby Heath oil wells will be re-injected into the Heath formation via the lateral of the Allen 10-31-22-27-H1 well. Considering that the total dissolved solids of the Heath production water is greater than ten thousand parts per million (10,000 ppm), an aquifer exemption will not be requested as part of this application.

In accordance with Rule 36.22.1410, Administrative Rules of Montana, this letter hereby provides notice to the surface and mineral owners or lessees of the area of review of the proposed injection application. Pursuant to Rule 36.22.1409, Administrative Rules of Montana, the Montana Board of Oil and Gas Conservation will hold a public hearing upon the application of Cardinal Oil, LLC for a Class II underground injection permit for the well described above. The hearing will be conducted at the Montana Board of Oil and Gas Conservation Hearing Room at 2535 St. Johns Avenue, Billings, Montana at nine o'clock in the morning (9:00 AM) on June 16, 2022. If you have any questions, concerns, or would like additional information regarding the proposed operations, please contact Danny Green with Cardinal Oil, LLC at 406-855-6208 or George Hudak with the Montana Department of Natural Resources & Conservation, Board of Oil and Gas Conservation at 406-656-0040.

Sincerely,

Danny Green
Engineering Consultant
Cardinal Oil, LLC



Cardinal Oil, LLC
2650 Overland Avenue
Billings, MT 59102
406-259-2580

May 3, 2022

Eric B & Betty L Hjelvik Trustees
PO Box 313
Melstone, MT 59054-0313

Re: Allen 10-31-22-27-H1 Notice of Application for a Class II Injection Well Permit
SESE-Section 22-T10N-R31E

Dear Mr. & Mrs. Hjelvik,

Cardinal Oil, LLC proposes to convert the existing Allen 10-31-22-27-H1 oil well into a Class II water injection well. The well is located within and upon SESE Quarter-Quarter, Section 22, Township 10 North, Range 31 East, Wildcat Rosebud, N Field, Rosebud County, Montana.

The Allen 10-31-22-27-H1 is a horizontal Heath well that was completed on 1/18/2021. The well was drilled to a total measured depth of ten thousand two hundred eighteen feet (10,218') with a true vertical depth of approximately five thousand two hundred seven feet (5,207'). The well is currently uneconomic to produce, and Cardinal Oil, LLC is seeking utility in the wellbore. Produced water from nearby Heath oil wells will be re-injected into the Heath formation via the lateral of the Allen 10-31-22-27-H1 well. Considering that the total dissolved solids of the Heath production water is greater than ten thousand parts per million (10,000 ppm), an aquifer exemption will not be requested as part of this application.

In accordance with Rule 36.22.1410, Administrative Rules of Montana, this letter hereby provides notice to the surface and mineral owners or lessees of the area of review of the proposed injection application. Pursuant to Rule 36.22.1409, Administrative Rules of Montana, the Montana Board of Oil and Gas Conservation will hold a public hearing upon the application of Cardinal Oil, LLC for a Class II underground injection permit for the well described above. The hearing will be conducted at the Montana Board of Oil and Gas Conservation Hearing Room at 2535 St. Johns Avenue, Billings, Montana at nine o'clock in the morning (9:00 AM) on June 16, 2022. If you have any questions, concerns, or would like additional information regarding the proposed operations, please contact Danny Green with Cardinal Oil, LLC at 406-855-6208 or George Hudak with the Montana Department of Natural Resources & Conservation, Board of Oil and Gas Conservation at 406-656-0040.

Sincerely,

Danny Green
Engineering Consultant
Cardinal Oil, LLC



Cardinal Oil, LLC
2650 Overland Avenue
Billings, MT 59102
406-259-2580

May 3, 2022

John Raymond Adams
PO Box 273
Melstone, MT 59054-0273

Re: Allen 10-31-22-27-H1 Notice of Application for a Class II Injection Well Permit
SESE-Section 22-T10N-R31E

Dear Mr. Adams,

Cardinal Oil, LLC proposes to convert the existing Allen 10-31-22-27-H1 oil well into a Class II water injection well. The well is located within and upon SESE Quarter-Quarter, Section 22, Township 10 North, Range 31 East, Wildcat Rosebud, N Field, Rosebud County, Montana.

The Allen 10-31-22-27-H1 is a horizontal Heath well that was completed on 1/18/2021. The well was drilled to a total measured depth of ten thousand two hundred eighteen feet (10,218') with a true vertical depth of approximately five thousand two hundred seven feet (5,207'). The well is currently uneconomic to produce, and Cardinal Oil, LLC is seeking utility in the wellbore. Produced water from nearby Heath oil wells will be re-injected into the Heath formation via the lateral of the Allen 10-31-22-27-H1 well. Considering that the total dissolved solids of the Heath production water is greater than ten thousand parts per million (10,000 ppm), an aquifer exemption will not be requested as part of this application.

In accordance with Rule 36.22.1410, Administrative Rules of Montana, this letter hereby provides notice to the surface and mineral owners or lessees of the area of review of the proposed injection application. Pursuant to Rule 36.22.1409, Administrative Rules of Montana, the Montana Board of Oil and Gas Conservation will hold a public hearing upon the application of Cardinal Oil, LLC for a Class II underground injection permit for the well described above. The hearing will be conducted at the Montana Board of Oil and Gas Conservation Hearing Room at 2535 St. Johns Avenue, Billings, Montana at nine o'clock in the morning (9:00 AM) on June 16, 2022. If you have any questions, concerns, or would like additional information regarding the proposed operations, please contact Danny Green with Cardinal Oil, LLC at 406-855-6208 or George Hudak with the Montana Department of Natural Resources & Conservation, Board of Oil and Gas Conservation at 406-656-0040.

Sincerely,

Danny Green
Engineering Consultant
Cardinal Oil, LLC



Cardinal Oil, LLC
2650 Overland Avenue
Billings, MT 59102
406-259-2580

May 3, 2022

William Bergin
Bergin Farm & Ranch, LLC
PO Box 49
Melstone, MT 59054-0049

Re: Allen 10-31-22-27-H1 Notice of Application for a Class II Injection Well Permit
SESE-Section 22-T10N-R31E

Dear Mr. Bergin,

Cardinal Oil, LLC proposes to convert the existing Allen 10-31-22-27-H1 oil well into a Class II water injection well. The well is located within and upon SESE Quarter-Quarter, Section 22, Township 10 North, Range 31 East, Wildcat Rosebud, N Field, Rosebud County, Montana.

The Allen 10-31-22-27-H1 is a horizontal Heath well that was completed on 1/18/2021. The well was drilled to a total measured depth of ten thousand two hundred eighteen feet (10,218') with a true vertical depth of approximately five thousand two hundred seven feet (5,207'). The well is currently uneconomic to produce, and Cardinal Oil, LLC is seeking utility in the wellbore. Produced water from nearby Heath oil wells will be re-injected into the Heath formation via the lateral of the Allen 10-31-22-27-H1 well. Considering that the total dissolved solids of the Heath production water is greater than ten thousand parts per million (10,000 ppm), an aquifer exemption will not be requested as part of this application.

In accordance with Rule 36.22.1410, Administrative Rules of Montana, this letter hereby provides notice to the surface and mineral owners or lessees of the area of review of the proposed injection application. Pursuant to Rule 36.22.1409, Administrative Rules of Montana, the Montana Board of Oil and Gas Conservation will hold a public hearing upon the application of Cardinal Oil, LLC for a Class II underground injection permit for the well described above. The hearing will be conducted at the Montana Board of Oil and Gas Conservation Hearing Room at 2535 St. Johns Avenue, Billings, Montana at nine o'clock in the morning (9:00 AM) on June 16, 2022. If you have any questions, concerns, or would like additional information regarding the proposed operations, please contact Danny Green with Cardinal Oil, LLC at 406-855-6208 or George Hudak with the Montana Department of Natural Resources & Conservation, Board of Oil and Gas Conservation at 406-656-0040.

Sincerely,

Danny Green
Engineering Consultant
Cardinal Oil, LLC

MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE
BILLINGS, MONTANA 59102
(406) 656-0040

Application For Permit To Construct Or Operate An Earthen Pit Or Pond
(Production Facility Only)

New pit <input type="checkbox"/> Existing pit <input checked="" type="checkbox"/>	Lease Name: Allen 10-31-22-27-H1
Operator Cardianl Oil, LLC Address 2650 Overland Avenue City Billings State MT Zip Code 59102 Telephone: (406) 259-2580 Fax: ()	Lease Type (Private/State/Federal): Private
	Unit Name: NA
	Field or Area: Wildcat Rosebud, N
	County: Rosebud
Location of Pit-Township, Range, Section, 1/4 1/4: T10N, R31E, Section 22, SESE	

Describe the purpose of the earthen pit or pond (if temporary, indicate anticipated time pit will be in use):
As part of the proposed Allen 10-31-22-27-H1 injection conversion, the existing lined pit will be used to stage production water prior to injection.

Allen 10-31-22-27-H1 Class II Injection Application
 Exhibit 20: Pit Sundry with Attachments
 Docket #-2022; June 16, 2022

API # of Well Associated With This Pit: 25 | 087 | 21750 Number of Wells Using Pit: 3

Average water inflow: 166 bbls./day Maximum pit volume: 13449 bbls.

Describe type and origin of fluids, name and location of source wells, producing formations, and approximate fluid volume contributed by each well: (Use additional sheets if necessary)

Well Name	Location	API No.	Formation	Average Water Production
Flying Monkey 1H	SWSW 14-10N-34E	25-087-21748	Middle Heath	111 bbls/day
Golden Monkey 1H	SESW 16-11N-34E	25-087-21746	Middle Heath	40 bbls/day
Spider Monkey #1H	SESE 34-11N-34E	25-087-21744	Middle Heath	15 bbls/day

Provide a copy of full water analysis with application for new pits only. Board may require a water analysis for existing pits. The water analysis must include the date and source of sample (treater, wellhead, pit, etc.), and the name, address, and telephone numbers of laboratories. Standard methods must be used for all collection and testing of samples.

BOARD USE ONLY		Signed (Agent) <u><i>Danny Green</i></u> Typed Name and Title Danny Green Engineering Consultant Date <u>May 11, 2022</u>
Approved (Date) _____ Permit Expires _____ By _____ Title _____	CONDITIONS OF APPROVAL ON REVERSE.	

SUPPLEMENTAL INFORMATION

Attach the following information to this permit application:

FOR NEW PITS: Attach diagrams of a top view and two side views of the pit or pond. The diagrams must show the length, width, depth, cut and fill, maximum fluid level, area of topsoil stockpile, and the height and width of berms. Identify the location of additional items such as fences, liners, monitoring wells, tanks, lines, siphons, or other equipment if used. Diagrams need not be prepared by an engineer or surveyor.

FOR EXISTING PITS: Attach color 3"x 5" (or larger) photographs of existing pit or pond. Indicate the date photographs were taken and name and address of the photographer. All photographs must accurately portray the size and condition of the earthen pit or pond at the time this application is submitted.

Describe the type and amount of material or liner used, if any, to seal the pit or pond. If a synthetic liner is used, indicate the liner thickness (mils), bursting strength, tensile strength, tear strength, puncture resistance, hydrostatic resistance, or attach the manufacturer's specification sheet to this application.

The pit is lined with a 20 mil woven reinforced, high density polyethylene liner. Please refer to the attached data sheet for technical specifications of the pit liner. Before the pit is used to retain injectate, the drill cuttings compartment of the pit will be solidified and closed. Additionally, the tear in the liner near the surface of the southwest corner of the reserve pit will be repaired. The pit will be repaired and reconstructed according to Rules 36.22.1207, 36.22.1226 and 36.22.1227, Administrative Rules of Montana. Please see the attached pictures for further details of the existing reserve pit condition.

Describe the proposed method of treatment and/or disposal of the liquid and solid contents upon abandonment of the pit or pond:

To abandon and close the staging pit, the pit will first be drained of all liquids. Fluid recovered from the pit will be injected down the Allen 10-31-22-27-H1 well. Any solid waste remaining will be solidified with fly ash. The edges of the liner will be cut, and the residual solids will be buried in place. The well pad and disturbance area will then be reclaimed according to MBOGC guidelines.

NOTE: The Operator must comply with all applicable federal, state, county, and local laws and regulations concerning the handling, treatment, and disposal of wastes.

NAME OF SURFACE OWNER: Dustin K Allen

SURFACE OWNER CONTACTED (date): 5/4/2022

This pit or pond was previously permitted by NA (operator(s)) on the _____ day of _____, _____ Attach a copy(ies) of the previous permit(s).

BOARD USE ONLY

CONDITIONS OF APPROVAL

The operator must comply with the following condition(s):

Failure to comply with conditions of approval may void this permit.

Allen 10-31-22-27-H1 Pit Photographs



south edge of pad, center of location, panoramic looking north

May 4, 2022
Danny Green

2650 Overland Avenue
Billings, MT 59102



north edge of reserve pit, looking southwest at liner tear

May 4, 2022
Danny Green

2650 Overland Avenue
Billings, MT 59102



north edge of reserve pit, looking southwest, zoomed in at liner tear

May 4, 2022
Danny Green

2650 Overland Avenue
Billings, MT 59102



southwest corner of cuttings pit, looking northeast

May 4, 2022
Danny Green

2650 Overland Avenue
Billings, MT 59102



southwest corner of cuttings pit, panoramic looking northeast

May 4, 2022
Danny Green

2650 Overland Avenue
Billings, MT 59102



northwest corner of cuttings pit, looking southeast

May 4, 2022
Danny Green

2650 Overland Avenue
Billings, MT 59102



northeast corner of reserve pit, looking southwest

May 4, 2022
Danny Green

2650 Overland Avenue
Billings, MT 59102



southeast corner of pad, looking northwest

May 4, 2022
Danny Green

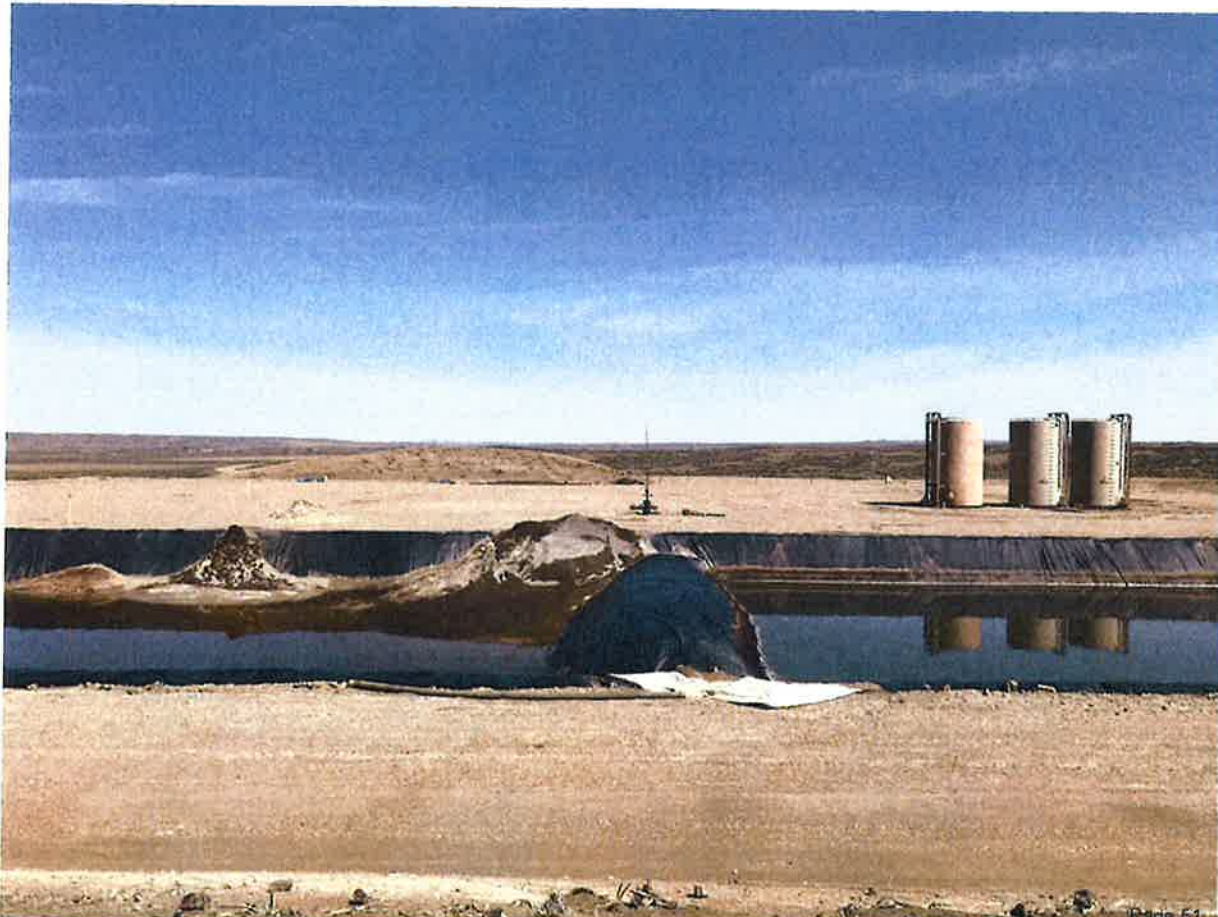
2650 Overland Avenue
Billings, MT 59102



southeast corner of pad, panoramic looking northwest

May 4, 2022
Danny Green

2650 Overland Avenue
Billings, MT 59102



southeast corner of pad, looking northwest

May 4, 2022
Danny Green

2650 Overland Avenue
Billings, MT 59102

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION
BOARD OF OIL AND GAS CONSERVATION



GREG CIANFORTE, GOVERNOR

OIL AND GAS CONSERVATION DIVISION

STATE OF MONTANA

May 12, 2022

Joshua Cornell, Vice President - Land
Empire North Dakota LLC
2200 S. Utica Place, Suite 150
Tulsa, OK 74114

Re: Pending Notice of Intent to Change Operator and Request to Appear

Dear Empire North Dakota LLC:

This letter is regarding the Notice of Intent to Change Operator request from Unit Petroleum Company to Empire North Dakota LLC (Empire ND) that was recently submitted to the Board of Oil and Gas Conservation (Board).

The request and the approval of the request will result in 5 or more inactive wells on Empire ND's multiple well bond. Due to the Board's transfer of plugging and reclamation policy, the approval of the change of operator request is being referred to the Board. The policy is enclosed. Empire ND is requested to appear at the June 16, 2022, public hearing. At that time, the Board will determine if Empire ND's current \$50,000 multiple well plugging and reclamation bond is adequate prior to the approval of the change of operator request. Empire ND and its attorney should review the enclosed policy for the suggested information to provide to the Board.

Please take note that corporations, partnerships, limited-liability companies (LLCs), or any other legal entity that is not a natural person cannot appear before the Board except through an attorney licensed to practice law in the State of Montana. Failure of a designated and duly licensed legal representative to appear at the time and place identified in this hearing notice may result in imposition of sanctions for failure to appear before the Board.

If you have any questions, please contact me at (406) 656-0040 or at jhalvorson@mt.gov.

Sincerely,

Handwritten signature of Jim Halvorson in black ink.

Jim Halvorson
Administrator / Petroleum Geologist

cc: Unit Petroleum Company

DIVISION OFFICE
1539 11th AVENUE
PO BOX 201601
HELENA, MONTANA 59620-1601
(406) 444-6731

TECHNICAL AND
SOUTHERN FIELD OFFICE
2535 ST. JOHNS AVENUE
BILLINGS, MONTANA 59102-4693
(406) 656-0040

NORTHERN FIELD OFFICE
201 MAIN STREET
PO BOX 690
SHELBY, MONTANA 59474-0690
(406) 434-2422

64 - 2022

MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE BILLINGS, MONTANA 59102

RECEIVED

MAY 09 2022

Notice of Intent to Change Operator

The undersigned Transferor hereby notifies the Board of Oil and Gas Conservation of its intention to transfer ownership and/or operation of the following wells to the undersigned Transferee.

MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

Lease Name:
McGinnis 2R-34

Lease type:(Private, State, Federal, Indian)
Private

County:
Richland

Field name:
Sioux Pass Middle (Red River)

Description of wells: Include API well number, well name and number, and exact location of the well including Township, Range, Section, quarter-quarter and footage measurements, and lease type . (Federal, Indian, Private, State) Attach additional sheets as necessary.
API - 2508321298
Well Name # - McGinnis 2R-34
Location - 26N-57E-34 SW NE NE 1172 FNL 1052 FEL
Lease Type - Private

RECEIVED

APR 29 2022

D.N.R.C.

Number of Wells to be Transferred: 1 Effective Date of Transfer: 03/01/2022

Transferor's Statement:
I hereby designate the Transferee named herein as the owner and/or operator of record of the above described well(s). I acknowledge that the Transferor continues to be responsible for said well(s) and all associated equipment and facilities until such time as this transfer is approved by the Montana Board of Oil and Gas Conservation. I certify that the information contained herein is true and correct:

Transferee's Statement:
I hereby accept the designation of operator/owner for the above described well(s). I understand that this transfer will not be approved until the Transferee has complied with the Board's bonding requirements. I acknowledge that under Section 82-11-101 MCA, the Transferee herein is responsible for the costs of proper plugging and restoration of the surface of the well(s) described above. I certify that the information contained herein is true and correct:

Company Unit Petroleum Company
Street Address 8200 South Unit Drive
P.O. Box 702500
City, State, ZIP Tulsa, OK 74170
Signed [Signature]
Print Name Matthew B. Mahaffey
Title Chief Landman
Telephone (918) 493-7700
Date 2-25-22

Company EMPIRE NORTH DAKOTA LLC
Street Address 2200 S. UTICA PLACE, STE. 150
P.O. Box _____
City, State, ZIP TULSA, OK 74114
Signed [Signature]
Print Name Joshua C. Cornell
Title Vice President - Land
Telephone (539) 444-8002
Date 4/19/22

BOARD USE ONLY

Approved _____ Date _____
Name _____ Title _____
Oper. No. 374 Bond No. 02

Field Office Review Date Initial
Inspection _____
Records Review _____
Operations _____
Oper. No. 851 Bond No. m1

LOT 91896 # 9034

64 - 2022

MAY 09 2022

Instructions for Form 20

MONTANA BOARD OF OIL & GAS CONSERVATION - BILLINGS

This form is used to change the Operator of Record for wells. Complete the front portion of this form as indicated.

To transfer a number of wells please type: "See attached list" in the **Description of Wells** area and include the list of wells as an attachment.

The list of wells should be separated by lease and sorted by Township, Range, and Section. Wells should be identified as Federal, Indian, Private, or State under lease type. Injection/SWD wells should be identified as such. Plugged and Abandoned wells should not be included for transfer. The list should be in the following format:

<u>API Number</u>	<u>Lease Name</u>	<u>Well Number</u>	<u>Twp. Rge. Sec.</u>	<u>Qtr Qtr</u>	<u>Footage</u>	<u>Lease Type</u>
-------------------	-------------------	--------------------	-----------------------	----------------	----------------	-------------------

The form must be signed by both the current owner/operator (transferor) and the proposed new owner/operator (transferee). The current operator of record will continue to be responsible for any wells and associated equipment or facilities until the transfer is approved by an authorized agent of the Montana Board of Oil and Gas Conservation.

For large change of operator submissions, if possible, please include a diskette containing the data list.

The Montana Board of Oil and Gas Conservation may withhold approval of the transfer until the well(s) made the subject of this form is (are) in substantial compliance with all applicable Board rules. All production reports, notices, forms, logs, samples, or other information required by Board law, rule, or order must be on file with the Board. The transferee must be in compliance with the Board's bonding requirements, as provided in Rules 36.22.1308 and 1408 ARM, before the transfer can be approved. A copy of the approved or disapproved Form 20 will be returned to each party.

Parties transferring wells are advised that the identity of responsible persons as defined by Section 82-11-101, MCA, will be determined by the Board's records.

If this form relates to a proposed change in the operator of record for a State of Montana oil and gas lease issued by the Montana Board of Land Commissioners, the parties should send a separate copy of this form to the Montana Department of Natural Resources and Conservation, Trust Lands Management Division, Minerals Management Bureau, 1625 Eleventh Avenue, P.O. Box 201601, Helena Montana 59620-1601.

The proposed new operator should have a current copy of the rules and laws of the Montana Board of Oil and Gas Conservation. Copies of the rules and laws may be obtained from any Board office, or are available on the Internet at <http://www.bogc.dnrc.mt.gov>.

NOTICE: False or inaccurate information can void the transfer of a well or wells to another operator's bond. Be sure to verify the accuracy of all well descriptions and other information supplied with this form.

BOARD USE ONLY	CONDITIONS OF APPROVAL

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION
BOARD OF OIL AND GAS CONSERVATION



GREG GIANFORTE, GOVERNOR

OIL AND GAS CONSERVATION DIVISION

STATE OF MONTANA

May 16, 2022

William Hutton, Managing Member
W-H Productions LLC
51 Sourdough Lane
Oilmont, MT 59466

Re: Pending Notice of Intent to Change Operator and Request to Appear

Dear W-H Productions LLC:

The Board of Oil and Gas Conservation (Board) recently received an email with an anticipated change operator request from Robert Hawkins, Inc. to W-H Productions LLC (W-H). The official Notice of Intent to Change Operator request has not yet been received by the Board and must be received prior to the June 16, 2022, public hearing.

The Board and its staff have reviewed the request and W-H is a new operator that is acquiring 10 or more wells to be covered by a single, multiple well bond. Due to the Board's transfer of plugging and reclamation policy, the approval of the change of operator request is being referred to the Board. The policy is enclosed. W-H is requested to appear at the June 16, 2022, public hearing. At that time, the Board will determine if W-H's proposed multiple well plugging and reclamation bond is adequate prior to the approval of the change of operator request. W-H and its attorney should review the enclosed policy for the suggested information to provide to the Board.

Please take note that corporations, partnerships, limited-liability companies (LLCs), or any other legal entity that is not a natural person cannot appear before the Board except through an attorney licensed to practice law in the State of Montana. Failure of a designated and duly licensed legal representative to appear at the time and place identified in this hearing notice may result in imposition of sanctions for failure to appear before the Board.

If you have any questions, please contact me at (406) 656-0040 or at jhalvorson@mt.gov.

Sincerely,

Handwritten signature of Jim Halvorson.

Jim Halvorson
Administrator / Petroleum Geologist

cc: Robert Hawkins, Inc.
Don Lee, Lee Law Office

DIVISION OFFICE
1539 11th AVENUE
PO BOX 201601
HELENA, MONTANA 59620-1601
(406) 444-6731

TECHNICAL AND
SOUTHERN FIELD OFFICE
2535 ST. JOHNS AVENUE
BILLINGS, MONTANA 59102-4693
(406) 656-0040

NORTHERN FIELD OFFICE
201 MAIN STREET
PO BOX 690
SHELBY, MONTANA 59474-0690
(406) 434-2422

65 - 2022

MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE BILLINGS, MONTANA 59102

Notice of Intent to Change Operator

The undersigned Transferor hereby notifies the Board of Oil and Gas Conservation of its intention to transfer ownership and/or operation of the following wells to the undersigned Transferee:

Lease Name:	Lease type:(Private, State, Federal, Indian)
-------------	--

County:	Field name:
---------	-------------

Description of wells: Include API well number, well name and number, and exact location of the well including Township, Range, Section, quarter-quarter and footage measurements, and lease type . (Federal, Indian, Private, State) Attach additional sheets as necessary.

See Exhibit "A" attached hereto.

Number of Wells to be Transferred: _____	Effective Date of Transfer: _____
--	-----------------------------------

Transferor's Statement:
I hereby designate the Transferee named herein as the owner and/or operator of record of the above described well(s). I acknowledge that the Transferor continues to be responsible for said well(s) and all associated equipment and facilities until such time as this transfer is approved by the Montana Board of Oil and Gas Conservation. I certify that the information contained herein is true and correct:

Transferee's Statement:
I hereby accept the designation of operator/owner for the above described well(s). I understand that this transfer will not be approved until the Transferee has complied with the Board's bonding requirements. I acknowledge that under Section 82-11-101 MCA, the Transferee herein is responsible for the costs of proper plugging and restoration of the surface of the well(s) described above. I certify that the information contained herein is true and correct:

Company Robert Hawkins, Inc.

Street Address _____

P.O. Box 300

City, State, ZIP Kevin, MT 59454

Signed _____

Print Name James G. Hawkins

Title President

Telephone (_____) _____

Date _____

Company W-H Productions LLC

Street Address 51 Sourdough Lane

P.O. Box _____

City, State, ZIP Oilmont, MT 59466

Signed _____

Print Name William J. Hutton

Title Managing Member

Telephone (406) _____ 403-6716

Date _____

BOARD USE ONLY

Approved _____
Date _____

Name Title

Field Office Review	Date	Initial
Inspection	_____	_____
Records Review	_____	_____
Operations	_____	_____

Oper. No. 9015 Bond No. ml

Oper No. _____ Bond No. _____

9035

65 - 2022

Instructions for Form 20

This form is used to change the Operator of Record for wells. Complete the front portion of this form as indicated.

To transfer a number of wells please type: "See attached list" in the **Description of Wells** area and include the list of wells as an attachment.

The list of wells should be separated by lease and sorted by Township, Range, and Section. Wells should be identified as Federal, Indian, Private, or State under lease type. Injection/SWD wells should be identified as such. Plugged and Abandoned wells should not be included for transfer. The list should be in the following format:

<u>API Number</u>	<u>Lease Name</u>	<u>Well Number</u>	<u>Twp. Rge. Sec.</u>	<u>Qtr Qtr</u>	<u>Footage</u>	<u>Lease Type</u>
-------------------	-------------------	--------------------	-----------------------	----------------	----------------	-------------------

The form must be signed by both the current owner/operator (transferor) and the proposed new owner/operator (transferee). The current operator of record will continue to be responsible for any wells and associated equipment or facilities until the transfer is approved by an authorized agent of the Montana Board of Oil and Gas Conservation.

For large change of operator submissions, if possible, please include a diskette containing the data list.

The Montana Board of Oil and Gas Conservation may withhold approval of the transfer until the well(s) made the subject of this form is (are) in substantial compliance with all applicable Board rules. All production reports, notices, forms, logs, samples, or other information required by Board law, rule, or order must be on file with the Board. The transferee must be in compliance with the Board's bonding requirements, as provided in Rules 36.22.1308 and 1408 ARM, before the transfer can be approved. A copy of the approved or disapproved Form 20 will be returned to each party.

Parties transferring wells are advised that the identity of responsible persons as defined by Section 82-11-101, MCA, will be determined by the Board's records.

If this form relates to a proposed change in the operator of record for a State of Montana oil and gas lease issued by the Montana Board of Land Commissioners, the parties should send a separate copy of this form to the Montana Department of Natural Resources and Conservation, Trust Lands Management Division, Minerals Management Bureau, 1625 Eleventh Avenue, P.O. Box 201601, Helena Montana 59620-1601.

The proposed new operator should have a current copy of the rules and laws of the Montana Board of Oil and Gas Conservation. Copies of the rules and laws may be obtained from any Board office, or are available on the Internet at <http://www.bogc.dnrc.mt.gov>.

NOTICE: False or inaccurate information can void the transfer of a well or wells to another operator's bond. Be sure to verify the accuracy of all well descriptions and other information supplied with this form.

BOARD USE ONLY	CONDITIONS OF APPROVAL

Plugging and Reclamation Bonds With Well List

ROBERT HAWKINS, INC.

Surety Bond	Operator	Active	Lexon Insurance Company	815	Bond: MI	\$50,000.00	Multiple Well Bond	Active	Wells: Approved	30	Allowed: 12/13/2016	Status
API #			Well			Location		Field	TD	PBTD		
101-07211	Robert Hawkins, Inc.		Berthelote 22X-30		36 N 2 E 30	SE SE NW 2310N 2310W		Berthelote	2690			SI OIL
101-08642	Robert Hawkins, Inc.		Berthelote 32-30		36 N 2 E 30	SW NE 2106N 2050E		Berthelote	2485			SI OIL
099-21170	Robert Hawkins, Inc.		Brownell 3		27 N 5 W 1	NW NW NW 650N 590W	Pondera		2157			SI OIL
099-21170	Robert Hawkins, Inc.		Brownell 4		27 N 5 W 1	NW SW NW 1541N 330W	Pondera		2228			SI OIL
099-21281	Robert Hawkins, Inc.		Brownell 5		27 N 5 W 1	SW NW 1970N 990W	Pondera		2215			SI OIL
099-05414	Robert Hawkins, Inc.		Brownell 2		27 N 5 W 1	NW NE NW 330N 1650W	Pondera		2194			SI OIL
099-05416	Robert Hawkins, Inc.		Brownell 1		27 N 5 W 1	NW NW NE 330N 2310E	Pondera		2154			SI OIL
099-21082	Robert Hawkins, Inc.		Brownell 4-2		27 N 5 W 2	NE NE NE 495N 330E	Pondera		2164			SI OH
099-21085	Robert Hawkins, Inc.		Loutitt-Mills 3		27 N 5 W 2	SE SW NW 2130N 990W	Pondera Coulee		2245			SI OIL
099-21094	Robert Hawkins, Inc.		Brownell A-3		27 N 5 W 2	NW SE NE 1694N 871E	Pondera		2200			SI OIL
099-21105	Robert Hawkins, Inc.		Brownell A-4		27 N 5 W 2	NE NW NE 548N 1663E	Pondera		2216			SI GAS
099-05412	Robert Hawkins, Inc.		Field 1		27 N 5 W 3	NW NW 990N 330W	Pondera Coulee		2485			SI OIL
099-21099	Robert Hawkins, Inc.		Loutitt-Mills 4-4		27 N 5 W 4	SE SE NE 2310N 330E	Pondera Coulee		2420			SI OIL
099-07006	Robert Hawkins, Inc.		Loutitt & Mills 2		27 N 5 W 4	SW SW NE 3000S 2310E	Pondera Coulee		2455			PR OIL
099-05405	Robert Hawkins, Inc.		Loutitt-Mills 1		27 N 5 W 4	SE NE 2970S 990E	Pondera Coulee		2452			C OIL
099-21270	Robert Hawkins, Inc.		Loutitt-Mills 3-1		38 N 5 W 33	SE SW SE 320S 1650E	Pondera Coulee		2405			SI OIL
101-10038	Robert Hawkins, Inc.		O.M. Putnam 1		35 N 1 W 32	SE NW SW 1540S 1100W	Kevin-Sunburst		1499			SI OIL
101-10039	Robert Hawkins, Inc.		O.M. Putnam 2		35 N 1 W 32	NW NW SW 2420S 220W	Kevin-Sunburst		1452			SI OIL
101-10040	Robert Hawkins, Inc.		Putnam 4		35 N 1 W 32	SW NW SW 1540S 220W	Kevin-Sunburst		1450			SI OIL
101-10041	Robert Hawkins, Inc.		Warner 6		35 N 1 W 32	NE NW SW 2420S 1100W	Kevin-Sunburst		1490			SI OIL
101-10042	Robert Hawkins, Inc.		Warner 9		35 N 1 W 32	N2 NW SW 2420S 660W	Kevin-Sunburst		1479			SI OIL
101-10043	Robert Hawkins, Inc.		Wm. Schacht 1		35 N 1 W 33	SW NE NW 1070N 1570W	Kevin-Sunburst		1483			PR OIL
101-10044	Robert Hawkins, Inc.		W. Schacht 3		35 N 1 W 33	NW NE NW 220N 1540W	Kevin-Sunburst		1502			PR OIL
101-10045	Robert Hawkins, Inc.		W. Schacht 4		35 N 1 W 33	NE NE NW	Kevin-Sunburst		1470			PR OIL
101-06637	Robert Hawkins, Inc.		Halter 7		35 N 2 W 17	C SE NE 1980N 660E	Kevin-Sunburst		1652			PR OIL
101-06673	Robert Hawkins, Inc.		Halter 5		35 N 2 W 17	NE SE NE 1602N 335E	Kevin-Sunburst		1624			SI OIL
101-06679	Robert Hawkins, Inc.		Halter 4		35 N 2 W 17	NW SE NE 1430N 990E	Kevin-Sunburst		1740	1745		PR OIL
101-06747	Robert Hawkins, Inc.		Halter 3		35 N 2 W 17	NE NE NE 220N 220E	Kevin-Sunburst		1626			SI OIL
101-22526	Robert Hawkins, Inc.		Haugen 14-2		35 N 3 W 2	SE SE SW 312S 2000W	Kevin-Sunburst		1872			PR OIL
101-07641	Robert Hawkins, Inc.		Peck 1		37 N 4 W 4	SE NE 2970S 330E	Cut Bank		2628	2627		SI OIL

Comment: