

October 14, 2021, 2021
Baldwin, Michigan 49304

Regular meeting of the Board of County Road Commissioners of the County of Lake was called to order at 9:00 a.m. by Chairman Truxton.

Present - *Gary Truxton, LCRC Commissioner*
 Richard Haslock, LCRC
 Commissioner Joan Runnels, LCRC
 Commissioner
 Leroy Williams, LCRC Manager
 Jessica LaPointe, LCRC Finance & HR Manager
 Shawn MacDougall, LCRC Road Foreman
 Tom Smith, LCRC Road Foreman
 David Leusby, LCRC Road Shop Foreman
 Al Dailey, LCRC Finance & HR Assistant

The following bills were presented and allowed for payment:

| | | | |
|-------|---------------------------------|----|------------|
| 10/11 | Payroll Voucher No. 5050 ----- | \$ | 67,723.88 |
| 10/13 | Material Voucher No. 5053 ----- | \$ | 148,816.56 |
| 10/11 | HRA Voucher No. 5052 ----- | \$ | 1,336.41 |

APPROVAL OF MINUTES:

Motion made by Runnels to approve the September 23, 2021 meeting minutes as read. Supported by Haslock. Yeas- Truxton and Runnels. Nays - 0. Motion carried.

PUBLIC COMMENT:

None.

REPORTS FROM

MANAGEMENT: FINANCE & HR

MANAGER:

LaPointe presented the MTF

Report. Update on the CRRSAA

funds.

Paul Bunyan meeting will take place on November 18, 2021.

Met with Jennie from Alfac this week.

MANAGER:

Broadway Bridge is open.

Stevenson Road is proceeding, looking for fair market value for the easement.

Johnson Rd/9 Mile is going well.

DNR has asked if the road commission would be willing to remove trees from Horizon. Board agrees.

Trying to contact Bob Myers regarding the new Forest Service ORV regulations.

Williams won't be attending the Winter Conference, would like Al Dailey to go in his place.

ROAD FOREMAN:

MACDOUGALL -

Blading washouts.

Crews out cleaning up trees.

Ironwood is done.

Spoke with Sauble Township about utilizing the Local Road Program funds.

SMITH -

Edge ruts.

Working on Olga Lake Road.

Drove around with the Michigan State Police checking 800 Mhz radios in Lake County.

Waiting to hear if Smith will be accepted for the CDL course.

EQUIPMENT SUPERINTENDENT:

Grapple for loader is here.

Picking up the grapple for the skid steer today.

Cost of new brine trailer will be \$116,000.

Would like the Board to keep in mind how difficult it is to find mechanics when negotiating the contract.

Would like to use the money available in the equipment reserve to pay for the excavator that we have going back on lease.

OLD BUSINESS:

Motion made by Haslock to table the 2022 brine bids until October 21, 2021.

Supported by Runnels. Yeas- Truxton and Runnels. Nays - 0. Roll call vote.

Motion carried.

Motion made by Runnels to accept Policy # 1048 – Removal or Trimming of Trees and Other Vegetation. Supported by Haslock. Yeas- Truxton and Runnels. Nays - 0. Motion carried.

Motion made by Runnels to accept Intergovernmental Agreement for Winter Road Maintenance. Supported by Haslock. Yeas- Truxton and Runnels. Nays - 0. Motion carried.

Haslock doesn't feel it is the Board's decision on what to do with trucks in the fleet.

NEW BUSINESS:

Motion made by Runnels to purchase the leased excavator. Supported by Haslock. Yeas- Truxton and Runnels. Nays - 0. Roll call vote. Motion carried.

Williams had a quarterly safety meeting with the safety committee, and they identified some concerns.

COMMISSIONERS PRIVILEGE:

Haslock – Everyone is doing well. Glad to see Williams is back.

Truxton – Interested in seeing how much it would cost to construct a

tower at Nyland's pit and rent space to cellular companies to provide better service to the Star Lake area. Everyone is doing a good job.

Runnels - Commissioner Seminar wasn't that great.

Motion made by Runnels to enter closed session, requested by Jessica LaPointe for personnel evaluation. Supported by Haslock, Yeas- Truxton and Runnels. Nays - 0. Roll call vote. Motion carried. 11:47am

Motion made by Runnels to return to open session. Supported by Haslock, Yeas- Truxton and Runnels. Nays - 0. Roll call vote. Motion carried. 2:00pm

PUBLIC COMMENT:

None

ADJOURNMENT:

Motion to adjourn made by Runnels. Supported by Haslock, Yeas- Truxton and Runnels. Nays - 0. Motion carried. 10:45 am

Next Meeting Date: October 21, 2021 Time: 9:00 am

Respectfully submitted by:



Jessica L. LaPointe - Secretary

Approved by:



Gary A. Truxton - Chairman



Richard J. Haslock - Vice Chairman



Joan Runnels - Member



2022 Dust/Ice Control Bid Tab

Michigan Chloride Sales

| | Per Gallon | Total Cost |
|---------------------------------|------------------------------|------------|
| # 1. Furnish & Loaded (26% min) | <u>.22</u> | _____ |
| # 2. Furnish & Loaded (38% min) | <u>—</u> | _____ |
| # 3. Furnish Storage Tanks | <u>included</u> | _____ |
| # 4. Furnish & Apply (26% min) | <u>.24</u> * 4 twp only * | _____ |

Northern A-1

| | Per Gallon | Total Cost |
|---------------------------------|----------------------------------|------------|
| # 1. Furnish & Loaded (26% min) | <u>.28</u> | _____ |
| # 2. Furnish & Loaded (38% min) | <u>No bid</u> | _____ |
| # 3. Furnish Storage Tanks | <u>Liner 325/unit</u> | _____ |
| # 4. Furnish & Apply (26% min) | <u>+ 2925/unit</u> <u>.32</u> | _____ |

Beckman's Production Services

| | Per Gallon | Total Cost |
|---------------------------------|---------------|------------|
| # 1. Furnish & Loaded (26% min) | <u>.34</u> | _____ |
| # 2. Furnish & Loaded (38% min) | <u>No bid</u> | _____ |
| # 3. Furnish Storage Tanks | <u>N/C</u> | _____ |
| # 4. Furnish & Apply (26% min) | <u>.42</u> | _____ |



BID FORM: MINERAL WELL BRINE – SUPPLIED

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Bidder to supply copy of brine analysis of all material bid including certification and perform all compliance testing.

Bidding information and minimum logistics:

- Approximate Annual Gallon Usage: 1.5 million gallons
- Frac Tank Capacity (each) and Locations: 21,000 gallons:
 - Two (2) in Lake County Road Commission Yard – Baldwin
 - One (1) in K&K Pit – Elk Twp
 - One (1) in Luther Pit – Newkirk Twp
- Usage/Consumption Rate: 120,000 gal/day maximum
- Advance Notification for Need: 24 HOURS ADVANCE NOTIFICATION NEEDED
- Frac Tank fill hose shall have a one-way check valve at the end of the fill hose/pump interface.
- Equipment utilized shall be Michigan Department of Agriculture approved regarding weights and measurement of product dispensed in accordance with P.A. 283 pf 1964 as amended.
- Load tickets are required.

Bid must be submitted in a sealed envelope bearing the name of the bidder and plainly marked as to the contents.

The Lake County Road Commission reserves the right to reject any, or all bids, and to accept the bid that is in the best interest of the county.

1. Furnish & loaded in storage facilities: Mineral Well Brine (min 26%) \$ 15.4 per gallon.
% Calcium 7.10 % Magnesium 2.14 % Sodium 20.1 % Total: 29.34
2. Furnish & loaded in storage facilities: Mineral Well Brine (min 38%) \$ _____ per gallon.
% Calcium _____ % Magnesium _____ % Sodium _____ % Total: _____
3. Furnish Storage Facilities (May 1st – Sept 15th) \$ _____ per unit
4. Furnish and apply: Mineral Well Brine (min 26%) \$ _____ per gallon
% Calcium _____ % Magnesium _____ % Sodium _____ % Total: _____

NOTES:

- Application rate is 2500 gallon/mile
- Map of area to be provided by LCRC
- Contractor shall apply total amount of product as shown in bid form
- Contractor to provide print out documentation and certification, signed and dated, to quantity and quality of material placed.
- Areas missed, shorted, or poorly placed shall be reapplied by contractor at his/her cost. No extra cost shall be authorized.
- LCRC and contractor shall coordinate application dates.
- Contractor to complete entire township prior to moving to next location.
- LCRC shall award to the bidder or bidders that are in the best interest of the township(s) and LCRC.
- LCRC shall inspect and notify the contractor within 48 hours of application of material of any discrepancy in quality of quantities of applications.
- Any coverage of material placed shall be the responsibility of the contractor. LCRC will not pay additional compensation except for extenuating circumstances.
- Material specifications to be included with bid.
- Billings shall be made directly to LCRC

Company Name: De B Brine Inc.

Company Address: 837 S Evergreen Dr.

City, State & Zip White Cloud MT 49349

Bidder Signature Marvin R Deur Jr.

Print Bidder Name Marvin R Deur Jr.

Bidder Email mapleman2976@gmail.com

Phone 231-225-6138

Fax _____

Mobile 231-225-6138

CLIENT: D & B Brines, Inc
 Project: Dust Control
 Lab ID: 2101138-02
 Client Sample ID: T-IW

Collection Date: 1/5/2021 12:00:00 PM
 Received Date: 1/5/2021 3:15:00 PM
 Matrix: BRINE
 Sampled By: Butch

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|----------|--------|----|------|-------|----|---------------|
|----------|--------|----|------|-------|----|---------------|

VOLATILE ORGANIC COMPOUNDS EPA 8260 Analyst: JS

| | | | | | | |
|----------------|-----------|---------|---|------|---|---------------------|
| Benzene | 0.0335 | 0.00500 | D | mg/L | 5 | 1/8/2021 6:27:00 PM |
| Toluene | 0.0224 | 0.00500 | D | mg/L | 5 | 1/8/2021 6:27:00 PM |
| Ethylbenzene | < 0.00500 | 0.00500 | D | mg/L | 5 | 1/8/2021 6:27:00 PM |
| m,p-Xylene | 0.00550 | 0.00500 | D | mg/L | 5 | 1/8/2021 6:27:00 PM |
| o-Xylene | < 0.00500 | 0.00500 | D | mg/L | 5 | 1/8/2021 6:27:00 PM |
| Xylenes, Total | < 0.00500 | 0.00500 | D | mg/L | 5 | 1/8/2021 6:27:00 PM |

METALS, AQUEOUS EPA 200.8 Analyst: TE

| | | | | | | |
|-----------|--------|------|---|------|-------|---------------------|
| Calcium | 25800 | 250 | D | mg/L | 12500 | 1/5/2021 9:59:30 PM |
| Magnesium | 5470 | 250 | D | mg/L | 12500 | 1/5/2021 9:59:30 PM |
| Potassium | < 1250 | 1250 | D | mg/L | 12500 | 1/5/2021 9:59:30 PM |
| Sodium | 79800 | 250 | D | mg/L | 12500 | 1/5/2021 9:59:30 PM |

ANIONS BY ION CHROMATOGRAPHY EPA 300.0 Analyst: KS

| | | | | | | |
|----------|--------|-------|--|------|---|----------------------|
| Chloride | 196000 | 0.100 | | mg/L | 1 | 1/5/2021 10:19:00 PM |
|----------|--------|-------|--|------|---|----------------------|

BRINE SALTS CALCULATION Analyst: SB

| | | | | | | |
|--------------------|----------|--------|--|---|---|----------------------|
| Other Chlorides | < 0.0100 | 0.0100 | | % | 1 | 1/6/2021 12:31:49 PM |
| Calcium Chloride | 7.10 | 0.0100 | | % | 1 | 1/6/2021 12:31:49 PM |
| Magnesium Chloride | 2.14 | 0.0100 | | % | 1 | 1/6/2021 12:31:49 PM |
| Sodium Chloride | 20.1 | 0.0100 | | % | 1 | 1/6/2021 12:31:49 PM |

SULFIDE EPA 376.2 Analyst: TE

| | | | | | | |
|---------|---------|-------|---|------|-----|---------------------|
| Sulfide | < 0.250 | 0.250 | D | mg/L | 2.5 | 1/6/2021 8:13:34 AM |
|---------|---------|-------|---|------|-----|---------------------|

Qualifiers: * Value exceeds Maximum Contaminant Level
 D Dilution was required
 MCL Maximum Contaminant Level
 RL Reporting Limit

ND Not Detected at the Reporting Limit
 H Holding times for preparation or analysis exceeded
 PL Permit Limit



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 - Two (2) in Lake County Road Commission Yard – Baldwin
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 - One (1) in Luther Pit – Newkirk Twp
- Usage/Consumption Rate: 120,000 gal/day maximum
- Advance Notification for Need: 24 HOURS ADVANCE NOTIFICATION NEEDED
- Frac Tank fill hose shall have a one-way check valve at the end of the fill hose/pump interface.
- Equipment utilized shall be Michigan Department of Agriculture approved regarding weights and measurement of product dispensed in accordance with P.A. 283 pf 1964 as amended.
- Load tickets are required.

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The Lake County Road Commission reserves the right to reject any, or all bids, and to accept the bid that is in the best interest of the county.

1. Furnish & loaded in storage facilities: Mineral Well Brine (min 26%) \$ _____ per gallon.
% Calcium _____ % Magnesium _____ % Sodium _____ % Total: _____

2. Furnish & loaded in storage facilities: Mineral Well Brine (min 38%) \$ _____ per gallon.
% Calcium _____ % Magnesium _____ % Sodium _____ % Total: _____

3. Furnish Storage Facilities (May 1st – Sept 15th) \$ _____ per unit

4. Furnish and apply: Mineral Well Brine (min 26%) \$ _____ per gallon
% Calcium _____ % Magnesium _____ % Sodium _____ % Total: _____

5. Supply Mineral Well Brine for loading at storage located on
Hayline's lease location \$ 6c/gal. See attached Mineral Brine analysis

NOTES:

- Application rate is 2500 gallon/mile
- Map of area to be provided by LCRC
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- Billings shall be made directly to LCRC

Company Name: Layline Oil and Gas LLC

Company Address: 135 E. Main St.

City, State & Zip Marin MI 49665

Bidder Signature Matt Maciag

Print Bidder Name Matt Maciag

Bidder Email M.Maciag@laylineenergy.com

Phone 231 743 2452

Fax

Mobile 231 679 4710

**INDEPENDENT TESTING LAB**

130 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH 231-929-0805 FAX 231-929-0894

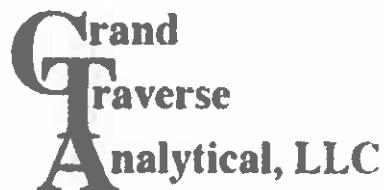
www.granalytical.com

| | | | |
|----------------|-------------------|-----------------|---------------------|
| COMPANY: | LAYLINE OIL & GAS | GTA PROJECT NO: | 021519-3 |
| PROJECT NO: | 2-14-19 | GTA SAMPLE NO: | 5 |
| LOCATION: | VARIOUS | DATE SAMPLED: | 2/15/2019 |
| | MI | TIME SAMPLED: | 10:00 AM |
| SAMPLE MATRIX: | WATER | DATE RECEIVED: | 2/15/2019 |
| SAMPLE ID: | WINT DEEP UNIT | TIME RECEIVED: | 11:47 AM |
| | | SAMPLED BY: | MATT MACIAG/LAYLINE |

EPA 8260B VOLATILE ORGANICS

| <u>Analysis</u> | <u>Concentration</u> | <u>LOD</u> | <u>Units</u> | <u>Analyst</u> | <u>Date Extracted</u> | <u>Date Complete</u> | <u>Prep Method</u> |
|-----------------|----------------------|------------|--------------|----------------|-----------------------|----------------------|--------------------|
| Benzene | 260 | 4.0 | ug/L (PPB) | MR | | 2/18/2019 | EPA 5030B |
| Toluene | 66 | 4.0 | | | | | |
| Ethylbenzene | 1.6 | 1.0 | | | | | |
| Xylene(Total) | 10 | 3.0 | | | | | |

SOIL/SOLIDS CONCENTRATIONS ARE DETERMINED ON A DRY WEIGHT BASIS
ND = NOT DETECTED, RESULT < LOD
LOD = LIMIT OF DETECTION

**INDEPENDENT TESTING LAB**

830 ROBINWOOD COURT, TRAVERSE CITY, MI 49686

PH 231-929-0905

FAX 231-929-0894

www.gtanalytical.com

COMPANY: LAYLINE ENERGY

GTA PROJECT NO: 031320-1

PROJECT NO:

GTA SAMPLE NO: 4

LOCATION: VARIOUS

DATE SAMPLED: 3/9/2020

TIME SAMPLED: 11:00 AM

DATE RECEIVED: 3/13/2020

TIME RECEIVED: 9:45 AM

MI

SAMPLED BY: MATT/LAYLINE

SAMPLE ANALYSIS

| No: <u>Analysis</u> | Concentration | LOD | Units | Analyst | Date | Sample |
|----------------------------------|---------------|-------|------------|---------|-----------|--------|
| SAMPLE ID: WINTERFIELD DEEP UNIT | 360,000 | 2,000 | mg/L (PPM) | I.V | 3/17/2020 | BRINE |
| CHLORIDE EPA 300.0 | | | | | | |

ND = NOT DETECTED, RESULT < LOD

LOD = LIMIT OF DETECTION

s.u. = STANDARD pH UNITS REPORTED AT 25 C



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- Load tickets are required.

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No Bid

1. Furnish & loaded in storage facilities: Mineral Well Brine (min 26%) \$ _____ per gallon.

% Calcium _____ % Magnesium _____ % Sodium _____ % Total: _____

No Bid

2. Furnish & loaded in storage facilities: Mineral Well Brine (min 38%) \$ _____ per gallon.

% Calcium _____ % Magnesium _____ % Sodium _____ % Total: _____

3. Furnish Storage Facilities (May 1st – Sept 15th) \$ *No Bid* per unit

4. Furnish and apply: Mineral Well Brine (min 26%) \$ *No Bid* per gallon

% Calcium _____ % Magnesium _____ % Sodium _____ % Total: _____

NOTES:

- Application rate is 2500 gallon/mile
- Map of area to be provided by LCRC
- Contractor shall apply total amount of product as shown in bid form
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- Billings shall be made directly to LCRC

Company Name: LIQUID CALCIUM CHLORIDE SALES

Company Address: 2715 S. HURON ROAD

City, State & Zip KALKASKA, MICHIGAN 48631

Bidder Signature Rodney Gerard

Print Bidder Name RODNEY GERARD

Bidder Email RODGERARD@GERARDGROUP.INFO

Phone 989-684-5860

Fax 989-684-9953

Mobile 989-239-5414



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% Calcium 18-22 % Magnesium 3-5 % Sodium 4-6 % Total: 26-30
2. Furnish & loaded in storage facilities: Mineral Well Brine (min 38%) \$ NO BID per gallon.
% Calcium N/A % Magnesium N/A % Sodium N/A % Total: N/A
3. Furnish Storage Facilities (May 1st – Sept 15th) \$ INCLUDED per unit
4. Furnish and apply: Mineral Well Brine (min 26%) \$ 0.24 per gallon
% Calcium 18-22 % Magnesium 3-5 % Sodium 4-6 % Total: 26-30

*APPLIED PRICE APPLICABLE FOR THE FOLLOWING TOWNSHIPS ONLY: CHASE, DOVER, NEWKIRK, AND SWEETWATER
*TERMS: NET 30 DAYS

NOTES:

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Company Name: MICHIGAN CHLORIDE SALES, LLC

Company Address: 402 W JACKSON ROAD

City, State & Zip ST. LOUIS, MI 48880

Bidder Signature Karen Vandooren

Print Bidder Name KAREN VANDOOREN, PRESIDENT

Bidder Email KVANDOOREN@MICHIGANCHLORIDE.COM

Phone (989) 681-3221

Fax (989) 681-3574

Mobile (248) 444-7751

Mineral Well Brine Analysis

Michigan Chloride Sales

Sample ID: 96421-001 (Loading Rack)

Collect Date: 06/03/20

Parameter

| | | | |
|-----------|-----------------------|-----------------|----------------------------------|
| Calcium | as calcium chloride | 24.4 % (w/v) | 19.5 % (w/w) |
| Magnesium | as magnesium chloride | 4.2 % (w/v) | 3.4 % (w/w) |
| Potassium | as potassium chloride | 1.2 % (w/v) | 1.0 % (w/w) |
| Sodium | as sodium chloride | 6.6 % (w/v) | 5.3 % (w/w) |
| <hr/> | | | |
| | | total chlorides | 36.44 % (w/v) 29.06 % (w/w) |

| | |
|-------------------|----------------------|
| pH | 5.18 |
| Specific Gravity | 1.254 |
| Weight per Gallon | 10.408 lbs. per gal. |

8660 S. Mackinaw Trail
1914 Holloway Drive

Cadillac, MI 49601
Holt, MI 48842

T: (231) 775-8368
T: (517) 699-0345

F: (231) 775-8584
F: (517) 699-0388

lab@fibertec.us



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3. Furnish Storage Facilities (May 1st – Sept 15th) \$ N/C per unit
4. Furnish and apply: Mineral Well Brine (min 26%) \$.42 per gallon
% Calcium _____ % Magnesium _____ % Sodium _____ % Total: _____

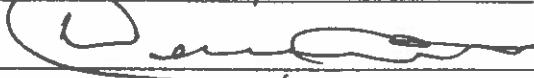
NOTES:

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- Contractor to provide print out documentation and certification, signed and dated, to quantity and quality of material placed.
- Areas missed, shorted, or poorly placed shall be reapplied by contractor at his/her cost. No extra cost shall be authorized.
- LCRC and contractor shall coordinate application dates.
- Contractor to complete entire township prior to moving to next location.
- LCRC shall award to the bidder or bidders that are in the best interest of the township(s) and LCRC.
- LCRC shall inspect and notify the contractor within 48 hours of application of material of any discrepancy in quality of quantities of applications.
- Any coverage of material placed shall be the responsibility of the contractor. LCRC will not pay additional compensation except for extenuating circumstances.
- Material specifications to be included with bid.
- Billings shall be made directly to LCRC

Company Name: BECKMAN PRODUCTION SER.

Company Address: 3786 BEEBE RD.

City, State & Zip Kalkaska, MI. 49646

Bidder Signature 

Print Bidder Name DENNY WAY

Bidder Email Logistics@BeckmanProduction.com

Phone 231-437-0105

Fax —

Mobile SAME



BID FORM: MINERAL WELL BRINE – SUPPLIED

To be Opened: 10:00 A.M., Thursday October 14, 2021

For one year, beginning October 15, 2021, with the mutually agreeable option of one (1) year extension.

Bidder to supply copy of brine analysis of all material bid including certification and perform all compliance testing.

Bidding information and minimum logistics:

- Approximate Annual Gallon Usage: 1.5 million gallons
- Frac Tank Capacity (each) and Locations: 21,000 gallons:
 - Two (2) in Lake County Road Commission Yard – Baldwin
 - One (1) in K&K Pit – Elk Twp
 - One (1) in Luther Pit – Newkirk Twp
- Usage/Consumption Rate: 120,000 gal/day maximum
- Advance Notification for Need: 24 HOURS ADVANCE NOTIFICATION NEEDED
- Frac Tank fill hose shall have a one-way check valve at the end of the fill hose/pump interface.
- Equipment utilized shall be Michigan Department of Agriculture approved regarding weights and measurement of product dispensed in accordance with P.A. 283 pf 1964 as amended.
- Load tickets are required.

Bid must be submitted in a sealed envelope bearing the name of the bidder and plainly marked as to the contents.

The Lake County Road Commission reserves the right to reject any, or all bids, and to accept the bid that is in the best interest of the county.

1. Furnish & loaded in storage facilities: Mineral Well Brine (min 26%) \$ 1.38 per gallon.
% Calcium 10 % Magnesium 4 % Sodium _____ % Total: 26% 35%
Chloride > 25%

2. Furnish & loaded in storage facilities: Mineral Well Brine (min 38%) \$ _____ per gallon.
% Calcium _____ % Magnesium _____ % Sodium _____ % Total: _____

3. Furnish Storage Facilities (May 1st – Sept 15th) \$ 2925.00 per unit
Soft Liners \$ 325.00 Each = Total \$ 1,300 (4 liners)

4. Furnish and apply: Mineral Well Brine (min 26%) \$ 0.32 per gallon
% Calcium 10 % Magnesium 0 % Sodium _____ % Total: 26% 35%
Chloride > 25%

Northern A-1 Services

Additional Information/Clarifications for Lake County Road Commission

2022 Mineral Brine Bid – Due October 14, 2021 at 10:00 am

Usage/Consumption Rate – 20,000 – 40,000 Gallons Maximum Per Day

Frac Tank Fill Hose – Northern A-1 will remove the hose after filling, we cannot unload through a check valve

Sampling of Mineral Brine is not a requirement by the State of Michigan. Once classified as a mineral well, there is no sampling required. If sampling is required by Lake County Road Commission, you would be responsible for the cost of sampling and analysis.

Lake County Road Commission is to be responsible to spread with a small truck what we cannot spread with our tanker.

Option: Northern A-1 can supply a 3,000-gallon vacuum truck at \$ 125.00 per hour portal to portal plus the price of brine \$ 0.32 per gallon.

Application will be 1,250 per lane mile

Northern A-1 cannot control nor be held liable if the road quality will not allow a truck to properly apply the brine.

Lake County Road Commission will be responsible for the cost of our truck to be pulled out or towed due to inadequate road conditions.

Northern A-1 cannot guarantee completion by the dates listed by Lake County Road Commission as this will be weather dependent. This also applies to LCRC inspecting the roads and notification within 48 hours as weather dependent on inclement weather



BID FORM: MINERAL WELL BRINE – SUPPLIED

To be Opened: 10:00 A.M., Thursday October 14, 2021

For one year, beginning October 15, 2021, with the mutually agreeable option of one (1) year extension.

Bidder to supply copy of brine analysis of all material bid including certification and perform all compliance testing.

Bidding information and minimum logistics:

- Approximate Annual Gallon Usage: 1.5 million gallons
- Frac Tank Capacity (each) and Locations: 21,000 gallons:
 - Two (2) in Lake County Road Commission Yard – Baldwin
 - One (1) in K&K Pit – Elk Twp
 - One (1) in Luther Pit – Newkirk Twp
- Usage/Consumption Rate: 120,000 gal/day maximum
- Advance Notification for Need: 24 HOURS ADVANCE NOTIFICATION NEEDED
- Frac Tank fill hose shall have a one-way check valve at the end of the fill hose/pump interface.
- Equipment utilized shall be Michigan Department of Agriculture approved regarding weights and measurement of product dispensed in accordance with P.A. 283 pf 1964 as amended.
- Load tickets are required.

Bid must be submitted in a sealed envelope bearing the name of the bidder and plainly marked as to the contents.

The Lake County Road Commission reserves the right to reject any, or all bids, and to accept the bid that is in the best interest of the county.

1. Furnish & loaded in storage facilities: Mineral Well Brine (min 26%) \$ No Bid per gallon.

% Calcium _____ % Magnesium _____ % Sodium _____ % Total: _____

2. Furnish & loaded in storage facilities: Mineral Well Brine (min 38%) \$ 0.4616 per gallon.

% Calcium 38 % Magnesium 0 % Sodium .5 % Total: 38.5

*****See attached Request Alternative to Bid Specification*****

3. Furnish Storage Facilities (May 1st – Sept 15th) \$ 0.00 per unit

4. Furnish and apply: Mineral Well Brine (min 26%) \$ 0.5320 per gallon

% Calcium 38 % Magnesium 0 % Sodium .5 % Total: 38.5

NOTES:

- Application rate is 2500 gallon/mile
- Map of area to be provided by LCRC
- Contractor shall apply total amount of product as shown in bid form
- Contractor to provide print out documentation and certification, signed and dated, to quantity and quality of material placed.
- Areas missed, shorted, or poorly placed shall be reapplied by contractor at his/her cost. No extra cost shall be authorized.
- LCRC and contractor shall coordinate application dates.
- Contractor to complete entire township prior to moving to next location.
- LCRC shall award to the bidder or bidders that are in the best interest of the township(s) and LCRC.
- LCRC shall inspect and notify the contractor within 48 hours of application of material of any discrepancy in quality of quantities of applications.
- Any coverage of material placed shall be the responsibility of the contractor. LCRC will not pay additional compensation except for extenuating circumstances.
- Material specifications to be included with bid.
- Billings shall be made directly to LCRC

Company Name: Great Lakes Chloride, Inc.

Company Address: P.O. Box 634

City, State & Zip Grand Haven, Michigan 49417

Bidder Signature 

Print Bidder Name Zach Clothier

Bidder Email zclothier@glchloride.com

Phone 574-267-2286

Fax 574-527-2234

Mobile 574-527-0287



ake County Road commission
1180 Michigan Avenue
Baldwin, Michigan 49304

October 11, 2021

To: Board of County Road Commissioners

Subject: Request Alternative to "Mineral Well Brine – Supplied" bid specification.

Great Lakes Chloride, Inc. would like to request an alternative to the current bid specification that would potentially reduce daily operational costs and provide a per mile product cost reduction for dust control. GLC would like to recommend the use of 38% LIQUIDOW™ calcium chloride. For the approximate annual usage of 1.5 million gallons of mineral well brine (raw brine) 38% LIQUIDOW™ equates to 770,808 gallons. The following information will explain how 38% Calcium Chloride will compare to the lab report provided taken from Benzie County brine storage.

Comparison of products:

Equivalent application rates = CaCl₂ App Rate X CaCl₂ density X Actual %
(Brine density X Equiv % CaCl₂)

Example:

| | | | |
|-------------------|----------------------|---|-------------|
| Current Bid Spec: | 26% Mineral Brine | <u>(1,500,000 gallons X 10.34 X 21.85%)</u> | = 3,388,935 |
| Purposed Spec: | 38% Calcium Chloride | <u>(11.57 X .38)</u> | = 4.3966 |

Equivalent Application rate for current Bid Spec: 3,388,935/4.3966 = 770,808 gallons.

Estimated operational cost savings:

For one full application of 415 miles of gravel roads using one 7,000 gallon applicator applying 1.5m gallons.

Application rate of 3,614 gallons /mile of 26% mineral brine = 1,500,000 gallons = 214 truck loads

Application Rate of 1,900 gallons / mile of 38% calcium chloride = 788,500 gallons = 112 truck loads

With a reduction of 102 truck loads +/- for one full application this will allow for equipment, manpower, and funds to be applied to another function of the road commission.

Effective dust control can reduce the overall cost to maintain unpaved roads by 30% or more

Please refer to the provided Michigan Dust Control Bid Guide & Best Practices brochure for further info
garding the benefits of LIQUIDOW™ over raw brines.

Lab Sample ID: S21310.03

Sample Tag: 38% Liquidow™ Calcium Chloride

Collected Date/Time: 02/04/2021 00:01

Matrix: Liquid

COC Reference:

Sample Containers

| # | Type | Preservative(s) | Refrigerated? | Arrival Temp. (C) | Thermometer # |
|---|---------------|-----------------|---------------|-------------------|---------------|
| 1 | 250ml Plastic | None | No | RT | IR |

Extraction / Prep.

| Parameter | Result | Method | Run Date | Analyst | Flags |
|-----------------|-----------|---------|----------------|---------|-------|
| Metal Digestion | Completed | SW3015A | 02/11/21 14:00 | CCM | |

Metals

Method: E200.6/E300.0, Run Date: 02/11/21 15:23, Analyst: CCM

| Parameter | Result | RL | MDL | Units | Dilution | CAS# | Flags |
|--------------------------------|--------------|-----|-----|--------|----------|-----------|-------|
| Calcium as CaCl ₂ * | 38.1 | 1.2 | | %wt/wt | 42553 | 7440-70-2 | |
| Magnesium as MgCl ₂ | Not detected | 1.7 | | %wt/wt | 42553 | 7439-95-4 | |
| Potassium as KCl | 1.1 | 0.8 | | %wt/wt | 42553 | 7440-09-7 | |
| Sodium as NaCl | Not detected | 1.1 | | %wt/wt | 42553 | | |