



|   |                                   |                        |   |
|---|-----------------------------------|------------------------|---|
|  | GILES CHEMICAL ~ PREMIER MAGNESIA |                        |  |
|   | Lot Production Record             |                        |   |
|   | Title: Lot Production Record      | Number: P13-FM-100-041 |   |
|   | Owner: Jason Bumgarner            | Revision: 04           |   |
|   | Effective Date: 07/21/15          | Page: 1 of 1           |   |

## LOT PRODUCTION RECORD

|                       |     |       |
|-----------------------|-----|-------|
| Date                  |     |       |
| Lot Number            |     |       |
|                       | DAY | NIGHT |
| Lead Operator         |     |       |
| Warehouse Operator    |     |       |
| Material Handler      |     |       |
| Salt Operator         |     |       |
| Assistant Operator II |     |       |

### Completed paper work for lot record

✓ or ✕

|                                   |  |
|-----------------------------------|--|
| Daily Production Report ( Day )   |  |
| Pallet count - Work Sheet         |  |
| Daily Production Report ( Night ) |  |
| Pallet count - Work Sheet         |  |

### ^4 SPC Charts

|                               |  |
|-------------------------------|--|
| Digester pH log               |  |
| Digester Specific Gravity Log |  |
| Process Specific Gravity Log  |  |
| Crystallizer Temperature Log  |  |
| Dryer Salt Temperature Log    |  |

### ^3 Process Upkeep Logs



|                            |  |
|----------------------------|--|
| Process Check Log          |  |
| Material handler Log       |  |
| Acid Log ( If applicable ) |  |
| MgO Log ( If applicable )  |  |

All daily records are to be completed, signed, dated and stapled together with this cover sheet. The Night shift Lead Operator is responsible for the daily lot record

|           |  |             |  |                    |  |               |  |
|-----------|--|-------------|--|--------------------|--|---------------|--|
| Lead Days |  | Lead Nights |  | Manager's Initials |  | QA's Initials |  |
|-----------|--|-------------|--|--------------------|--|---------------|--|

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|   |  |                                       |  |                         |  |   |  |
|---|--|---------------------------------------|--|-------------------------|--|---|--|
|  |  | GILES CHEMICAL ~ PREMIER MAGNESIA     |  |                         |  |  |  |
|   |  | Company Form                          |  |                         |  |   |  |
|   |  | Title: Daily Production Report - Days |  | Number: P12-FM-100-009a |  |   |  |
|   |  | Owner: Jason Bumgarner                |  | Revision: 05            |  |   |  |
|   |  | Effective Date: 01/19/16              |  | Page: 1 of 1            |  |   |  |

|                                      |  |    |    |    |      |      |
|--------------------------------------|--|----|----|----|------|------|
| Date and Shift<br>____ / ____ / ____ |  | LO | SO | MH | AO-1 | AO-2 |
| Days                                 |  |    |    |    |      |      |

|             |          |              |      |                 |     |               |
|-------------|----------|--------------|------|-----------------|-----|---------------|
| Super Sacks | Customer | Product Type | CO # | Amount Produced | SCR | Screened Type |
|             |          |              |      |                 |     |               |
|             |          |              |      |                 |     |               |
|             |          |              |      |                 |     |               |

|      |          |              |      |                 |     |               |
|------|----------|--------------|------|-----------------|-----|---------------|
| Bags | Customer | Product Type | CO # | Amount Produced | SCR | Screened Type |
|      |          |              |      |                 |     |               |
|      |          |              |      |                 |     |               |
|      |          |              |      |                 |     |               |

|                      |            |       |          |          |          |      |
|----------------------|------------|-------|----------|----------|----------|------|
| Pre-printed Film Use |            |       |          |          |          |      |
|                      | Film       | Start | New Roll | New Roll | Finished | Used |
|                      | Roll Lot # |       |          |          |          |      |
|                      |            |       |          |          |          |      |
|                      | Film       | Start | New Roll | New Roll | Finished | Used |
|                      | Roll Lot # |       |          |          |          |      |
|                      |            |       |          |          |          |      |
|                      | Film       | Start | New Roll | New Roll | Finished | Used |

|                        |  |                      |    |     |     |     |
|------------------------|--|----------------------|----|-----|-----|-----|
| Total Fines            |  | Weight of each TSF - |    |     |     |     |
| Total Repack Sacks Ran |  | CW                   | RP | RPS | RPM | RPO |
|                        |  |                      |    |     |     |     |

|              |      |       |       |       |       |       |
|--------------|------|-------|-------|-------|-------|-------|
|              | 8:00 | 10:00 | 12:00 | 14:00 | 16:00 | 18:00 |
| Total Tons @ |      |       |       |       |       |       |
| Sift Rate    |      |       |       |       |       |       |

|                 |  |  |                     |  |              |  |
|-----------------|--|--|---------------------|--|--------------|--|
| Production Goal |  |  | Total Tons Produced |  | Liquid Loads |  |
|-----------------|--|--|---------------------|--|--------------|--|



|                  |              |                                       |              |  |               |  |
|------------------|--------------|---------------------------------------|--------------|--|---------------|--|
| Salt Re-melt Log | # of Hoppers | List of all barcode numbers re-melted | # of Dust SS |  | # with No Tag |  |
|                  | # with Tags  |                                       |              |  |               |  |
|                  |              |                                       |              |  |               |  |
|                  |              |                                       |              |  |               |  |

|                    |  |               |  |  |
|--------------------|--|---------------|--|--|
| Manager's Initials |  | QA's Initials |  | Any Issues resulting in loss of Production need to be addressed on Production sheet and / or Shift Transition Report |
|--------------------|--|---------------|--|--|

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|---|--|---------------------------------------|--|-------------------------|--|---|--|
|  |  | GILES CHEMICAL ~ PREMIER MAGNESIA     |  |                         |  |  |  |
|   |  | Company Form                          |  |                         |  |   |  |
|   |  | Title: Daily Production Report - Days |  | Number: P12-FM-100-009b |  |   |  |
|   |  | Owner: Jason Bumgarner                |  | Revision: 05            |  |   |  |
|   |  | Effective Date: 01/19/16              |  | Page: 1 of 1            |  |   |  |

|                                      |  |    |    |    |      |      |
|--------------------------------------|--|----|----|----|------|------|
| Date and Shift<br>____ / ____ / ____ |  | LO | SO | MH | AO-1 | AO-2 |
| Nights                               |  |    |    |    |      |      |

|             |          |              |      |                 |     |               |
|-------------|----------|--------------|------|-----------------|-----|---------------|
| Super Sacks | Customer | Product Type | CO # | Amount Produced | SCR | Screened Type |
|             |          |              |      |                 |     |               |
|             |          |              |      |                 |     |               |
|             |          |              |      |                 |     |               |

|      |          |              |      |                 |     |               |
|------|----------|--------------|------|-----------------|-----|---------------|
| Bags | Customer | Product Type | CO # | Amount Produced | SCR | Screened Type |
|      |          |              |      |                 |     |               |
|      |          |              |      |                 |     |               |
|      |          |              |      |                 |     |               |

|                      |            |       |          |          |          |      |
|----------------------|------------|-------|----------|----------|----------|------|
| Pre-printed Film Use |            |       |          |          |          |      |
|                      | Film       | Start | New Roll | New Roll | Finished | Used |
|                      | Roll Lot # |       |          |          |          |      |
|                      |            |       |          |          |          |      |
|                      | Film       | Start | New Roll | New Roll | Finished | Used |
|                      | Roll Lot # |       |          |          |          |      |
|                      |            |       |          |          |          |      |
|                      | Film       | Start | New Roll | New Roll | Finished | Used |

|                        |  |                      |    |     |     |     |
|------------------------|--|----------------------|----|-----|-----|-----|
| Total Fines            |  | Weight of each TSF - |    |     |     |     |
| Total Repack Sacks Ran |  | CW                   | RP | RPS | RPM | RPO |
|                        |  |                      |    |     |     |     |

|              |       |       |      |      |      |      |
|--------------|-------|-------|------|------|------|------|
|              | 20:00 | 22:00 | 0:00 | 2:00 | 4:00 | 6:00 |
| Total Tons @ |       |       |      |      |      |      |
| Sift Rate    |       |       |      |      |      |      |

|                 |  |  |                     |  |              |  |
|-----------------|--|--|---------------------|--|--------------|--|
| Production Goal |  |  | Total Tons Produced |  | Liquid Loads |  |
|-----------------|--|--|---------------------|--|--------------|--|

|                  |              |                                       |              |  |               |  |
|------------------|--------------|---------------------------------------|--------------|--|---------------|--|
| Salt Re-melt Log | # of Hoppers | List of all barcode numbers re-melted | # of Dust SS |  | # with No Tag |  |
|                  | # with Tags  |                                       |              |  |               |  |
|                  |              |                                       |              |  |               |  |
|                  |              |                                       |              |  |               |  |

|                    |  |               |  |  |
|--------------------|--|---------------|--|--|
| Manager's Initials |  | QA's Initials |  | Any Issues resulting in loss of Production need to be addressed on Production sheet and / or Shift Transition Report |
|--------------------|--|---------------|--|--|

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GILES CHEMICAL ~ PREMIER MAGNESIA  
Lot Production Record



Title: **Digester Specific Gravity** Number: **P12-FM-100-006a**  
Owner: **Jason Bumgarner** Revision: **03**  
Effective Date: **12/11/14** Page: **1 of 1**

|                     | 8:00      | 10:00 | 12:00 | 14:00 | 16:00 | 18:00 | 20:00 | 22:00 | 0:00 | 2:00 | 4:00 | 6:00 |
|---------------------|-----------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| #1 Specific Gravity | 1.410     |       |       |       |       |       |       |       |      |      |      |      |
|                     | 1.404     |       |       |       |       |       |       |       |      |      |      |      |
|                     | 1.398     |       |       |       |       |       |       |       |      |      |      |      |
|                     | 1.391     |       |       |       |       |       |       |       |      |      |      |      |
|                     | 1.385     |       |       |       |       |       |       |       |      |      |      |      |
|                     | 1.378     |       |       |       |       |       |       |       |      |      |      |      |
|                     | 1.372     |       |       |       |       |       |       |       |      |      |      |      |
|                     | 1.366     |       |       |       |       |       |       |       |      |      |      |      |
|                     | 1.359     |       |       |       |       |       |       |       |      |      |      |      |
|                     | Results - |       |       |       |       |       |       |       |      |      |      |      |

|                     |           |  |  |  |  |  |  |  |  |  |  |  |
|---------------------|-----------|--|--|--|--|--|--|--|--|--|--|--|
| #2 Specific Gravity | 1.410     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.404     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.398     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.391     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.385     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.378     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.372     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.366     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.359     |  |  |  |  |  |  |  |  |  |  |  |
|                     | Results - |  |  |  |  |  |  |  |  |  |  |  |

|                     |           |  |  |  |  |  |  |  |  |  |  |  |
|---------------------|-----------|--|--|--|--|--|--|--|--|--|--|--|
| #3 Specific Gravity | 1.410     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.404     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.398     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.391     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.385     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.378     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.372     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.366     |  |  |  |  |  |  |  |  |  |  |  |
|                     | 1.359     |  |  |  |  |  |  |  |  |  |  |  |
|                     | Results - |  |  |  |  |  |  |  |  |  |  |  |



| Time | Action taken when out of limits | Time | Action taken when out of limits |
|------|---------------------------------|------|---------------------------------|
| :-   |                                 | :-   |                                 |
| :-   |                                 | :-   |                                 |
| :-   |                                 | :-   |                                 |

|                                  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Day Hopper<br><i>full - x/✓</i>  |  |  |  |  |  |  |  |  |  |  |  |  |
| ML Sp.Gr.<br><i>1.27-1.32</i>    |  |  |  |  |  |  |  |  |  |  |  |  |
| Mud Temp<br><i>60-80C</i>        |  |  |  |  |  |  |  |  |  |  |  |  |
| Mud Sp.Gr.<br><i>1.38-1.41</i>   |  |  |  |  |  |  |  |  |  |  |  |  |
| Brine Sp.Gr.<br><i>1.37-1.40</i> |  |  |  |  |  |  |  |  |  |  |  |  |
| Initials                         |  |  |  |  |  |  |  |  |  |  |  |  |

|       |  |                    |  |                       |  |                  |  |
|-------|--|--------------------|--|-----------------------|--|------------------|--|
| DATE: |  | Lead's<br>Initials |  | Manager's<br>Initials |  | QA's<br>Initials |  |
|-------|--|--------------------|--|-----------------------|--|------------------|--|

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|--|--|--|--|--|--------------------------------|--|--|--|--|--|--|--|
|  | <b>GILES CHEMICAL ~ PREMIER MAGNESIA</b><br><b>Lot Production Record</b> |  |  |  |                                |  |  |  |  |  |  |  |
|  | Title: <b>Digester pH</b>  |  |  |  | Number: <b>P12-FM-100-006b</b> |  |  |  |  |  |  |  |
|  | Owner: <b>Jason Bumgarner</b>  |  |  |  | Revision: <b>04</b>            |  |  |  |  |  |  |  |
|  | Effective Date: <b>09/14/15</b>  |  |  |  | Page: <b>1 of 1</b>            |  |  |  |  |  |  |  |

|                      |     |      |       |       |       |       |       |       |       |      |      |      |      |
|----------------------|-----|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| #1 - 1st Digester pH |     | 8:00 | 10:00 | 12:00 | 14:00 | 16:00 | 18:00 | 20:00 | 22:00 | 0:00 | 2:00 | 4:00 | 6:00 |
|                      | 6.9 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 6.1 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 5.3 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 4.6 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 3.8 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 3.0 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 2.3 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 1.5 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 0.7 |      |       |       |       |       |       |       |       |      |      |      |      |
| Probe-               |     |      |       |       |       |       |       |       |       |      |      |      |      |
| Paper -              |     |      |       |       |       |       |       |       |       |      |      |      |      |

|                      |     |      |       |       |       |       |       |       |       |      |      |      |      |
|----------------------|-----|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| #2 - 1st Digester pH |     | 8:00 | 10:00 | 12:00 | 14:00 | 16:00 | 18:00 | 20:00 | 22:00 | 0:00 | 2:00 | 4:00 | 6:00 |
|                      | 6.9 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 6.1 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 5.3 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 4.6 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 3.8 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 3.0 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 2.3 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 1.5 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 0.7 |      |       |       |       |       |       |       |       |      |      |      |      |
| Probe-               |     |      |       |       |       |       |       |       |       |      |      |      |      |
| Paper -              |     |      |       |       |       |       |       |       |       |      |      |      |      |

|                      |     |      |       |       |       |       |       |       |       |      |      |      |      |
|----------------------|-----|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| #3 - 1st Digester pH |     | 8:00 | 10:00 | 12:00 | 14:00 | 16:00 | 18:00 | 20:00 | 22:00 | 0:00 | 2:00 | 4:00 | 6:00 |
|                      | 6.9 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 6.1 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 5.3 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 4.6 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 3.8 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 3.0 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 2.3 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 1.5 |      |       |       |       |       |       |       |       |      |      |      |      |
|                      | 0.7 |      |       |       |       |       |       |       |       |      |      |      |      |
| Probe-               |     |      |       |       |       |       |       |       |       |      |      |      |      |
| Paper -              |     |      |       |       |       |       |       |       |       |      |      |      |      |

|             |  |             |  |
|-------------|--|-------------|--|
| <i>Time</i> | <i>Action taken when out of limits</i> | <i>Time</i> | <i>Action taken when out of limits</i> |
| :-          |  | :-          |  |
| :-          |  | :-          |  |
| :-          |  | :-          |  |



|            |  |  |  |  |  |  |  |  |  |  |  |  |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Recovery   |  |  |  |  |  |  |  |  |  |  |  |  |
| x/√        |  |  |  |  |  |  |  |  |  |  |  |  |
| Pots Clean |  |  |  |  |  |  |  |  |  |  |  |  |
| x/√        |  |  |  |  |  |  |  |  |  |  |  |  |
| Circ Loops |  |  |  |  |  |  |  |  |  |  |  |  |
| >40gpm     |  |  |  |  |  |  |  |  |  |  |  |  |
| MgO Feed   |  |  |  |  |  |  |  |  |  |  |  |  |
| gpm        |  |  |  |  |  |  |  |  |  |  |  |  |
| ML Feed    |  |  |  |  |  |  |  |  |  |  |  |  |
| 20-35gpm   |  |  |  |  |  |  |  |  |  |  |  |  |
| Initials   |  |  |  |  |  |  |  |  |  |  |  |  |

|       |  |                    |  |                       |  |                  |  |
|-------|--|--------------------|--|-----------------------|--|------------------|--|
| DATE: |  | Lead's<br>Initials |  | Manager's<br>Initials |  | QA's<br>Initials |  |
|-------|--|--------------------|--|-----------------------|--|------------------|--|

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|--|--|--|--|--|--|--|--|--|--|--|--|--|-------------------------------|--|--|--|
|  | <b>GILES CHEMICAL ~ PREMIER MAGNESIA</b><br><b>Lot Production Record</b> |  |  |  |  |  |  |  |  |  |  |  |                               |  |  |  |
|  | Title: <b>Process Specific Gravity</b>                                   |  |  |  |  |  |  |  |  |  |  |  | Number: <b>P12-FM-100-052</b> |  |  |  |
|  | Owner: <b>Jason Bumgarner</b>  |  |  |  |  |  |  |  |  |  |  |  | Revision: <b>0</b>            |  |  |  |
|  | Effective Date: <b>12/11/14</b>  |  |  |  |  |  |  |  |  |  |  |  | Page: <b>1 of 1</b>           |  |  |  |

|             |           |       |       |       |       |       |       |       |      |      |      |      |  |
|-------------|-----------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|--|
|             | 8:00      | 10:00 | 12:00 | 14:00 | 16:00 | 18:00 | 20:00 | 22:00 | 0:00 | 2:00 | 4:00 | 6:00 |  |
| Mud Density | 1.410     |       |       |       |       |       |       |       |      |      |      |      |  |
|             | 1.404     |       |       |       |       |       |       |       |      |      |      |      |  |
|             | 1.398     |       |       |       |       |       |       |       |      |      |      |      |  |
|             | 1.391     |       |       |       |       |       |       |       |      |      |      |      |  |
|             | 1.385     |       |       |       |       |       |       |       |      |      |      |      |  |
|             | 1.378     |       |       |       |       |       |       |       |      |      |      |      |  |
|             | 1.372     |       |       |       |       |       |       |       |      |      |      |      |  |
|             | 1.366     |       |       |       |       |       |       |       |      |      |      |      |  |
|             | 1.359     |       |       |       |       |       |       |       |      |      |      |      |  |
|             | Results - |       |       |       |       |       |       |       |      |      |      |      |  |

|               |           |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|
| Brine Density | 1.410     |  |  |  |  |  |  |  |  |  |  |  |  |
|               | 1.404     |  |  |  |  |  |  |  |  |  |  |  |  |
|               | 1.398     |  |  |  |  |  |  |  |  |  |  |  |  |
|               | 1.391     |  |  |  |  |  |  |  |  |  |  |  |  |
|               | 1.385     |  |  |  |  |  |  |  |  |  |  |  |  |
|               | 1.378     |  |  |  |  |  |  |  |  |  |  |  |  |
|               | 1.372     |  |  |  |  |  |  |  |  |  |  |  |  |
|               | 1.366     |  |  |  |  |  |  |  |  |  |  |  |  |
|               | 1.359     |  |  |  |  |  |  |  |  |  |  |  |  |
|               | Results - |  |  |  |  |  |  |  |  |  |  |  |  |

|                      |           |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|
| Mother Liquor Densit | 1.330     |  |  |  |  |  |  |  |  |  |  |  |  |
|                      | 1.320     |  |  |  |  |  |  |  |  |  |  |  |  |
|                      | 1.310     |  |  |  |  |  |  |  |  |  |  |  |  |
|                      | 1.300     |  |  |  |  |  |  |  |  |  |  |  |  |
|                      | 1.290     |  |  |  |  |  |  |  |  |  |  |  |  |
|                      | 1.280     |  |  |  |  |  |  |  |  |  |  |  |  |
|                      | 1.270     |  |  |  |  |  |  |  |  |  |  |  |  |
|                      | 1.260     |  |  |  |  |  |  |  |  |  |  |  |  |
|                      | 1.250     |  |  |  |  |  |  |  |  |  |  |  |  |
|                      | Results - |  |  |  |  |  |  |  |  |  |  |  |  |

|             |  |             |  |
|-------------|--|-------------|--|
| <i>Time</i> | <i>Action taken when out of limits</i> | <i>Time</i> | <i>Action taken when out of limits</i> |
| 1:--        |  | 1:--        |  |
| 1:--        |  | 1:--        |  |
| 1:--        |  | 1:--        |  |

|        |   |  |  |  |  |  |  |  |  |  |  |  |
|--------|---|--|--|--|--|--|--|--|--|--|--|--|
| Solids | 1 |  |  |  |  |  |  |  |  |  |  |  |
|        | 2 |  |  |  |  |  |  |  |  |  |  |  |
|        | 3 |  |  |  |  |  |  |  |  |  |  |  |
|        | 4 |  |  |  |  |  |  |  |  |  |  |  |
|        | 5 |  |  |  |  |  |  |  |  |  |  |  |

Check yes or no if all of the items below are operating correctly

|            |  |  |  |  |  |  |  |  |  |  |  |  |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Fine Salt  |  |  |  |  |  |  |  |  |  |  |  |  |
| City Water |  |  |  |  |  |  |  |  |  |  |  |  |
| Chiller    |  |  |  |  |  |  |  |  |  |  |  |  |



|          |  |  |  |  |  |  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|--|--|--|--|--|
| Initials |  |  |  |  |  |  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|--|--|--|--|--|

|       |  |                 |  |                    |  |               |  |
|-------|--|-----------------|--|--------------------|--|---------------|--|
| DATE: |  | Lead's Initials |  | Manager's Initials |  | QA's Initials |  |
|-------|--|-----------------|--|--------------------|--|---------------|--|

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|---|---|--|--|--|--|--|--|--|---|--|--|--|-------------------------------|--|--|--|
|  | <b>GILES CHEMICAL ~ PREMIER MAGNESIA</b><br>Lot Production Record |  |  |  |  |  |  |  |  |  |  |  |                               |  |  |  |
|   | Title: <b>Crystallizer Temperatures</b>                           |  |  |  |  |  |  |  |   |  |  |  | Number: <b>P12-FM-100-007</b> |  |  |  |
|   | Owner: <b>Jason Bumgarner</b>                                     |  |  |  |  |  |  |  |   |  |  |  | Revision: <b>04</b>           |  |  |  |
|   | Effective Date: <b>12/11/14</b>                                   |  |  |  |  |  |  |  |   |  |  |  | Page: <b>1 of 1</b>           |  |  |  |

|                     | 7:00                                   | 9:00 | 11:00 | 13:00 | 15:00           | 17:00    | 19:00                                  | 21:00 | 23:00         | 1:00 | 3:00 | 5:00 |  |
|---------------------|--|------|-------|-------|-----------------|----------|--|-------|---------------|------|------|------|--|
| 1 Crystallizer Temp | 32.88                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 32.16                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 31.44                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 30.72                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 30.00                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 29.28                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 28.56                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 27.84                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 27.12                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | Results-                               |      |       |       |                 |          |  |       |               |      |      |      |  |
| 2 Crystallizer Temp | 32.88                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 32.16                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 31.44                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 30.72                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 30.00                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 29.28                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 28.56                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 27.84                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 27.12                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | Results-                               |      |       |       |                 |          |  |       |               |      |      |      |  |
| 3 Crystallizer Temp | 32.88                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 32.16                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 31.44                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 30.72                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 30.00                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 29.28                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 28.56                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 27.84                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 27.12                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | Results-                               |      |       |       |                 |          |  |       |               |      |      |      |  |
| 4 Crystallizer Temp | 32.88                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 32.16                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 31.44                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 30.72                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 30.00                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 29.28                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 28.56                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 27.84                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 27.12                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | Results-                               |      |       |       |                 |          |  |       |               |      |      |      |  |
| 5 Crystallizer Temp | 32.88                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 32.16                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 31.44                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 30.72                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 30.00                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 29.28                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 28.56                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 27.84                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | 27.12                                  |      |       |       |                 |          |  |       |               |      |      |      |  |
|                     | Results-                               |      |       |       |                 |          |  |       |               |      |      |      |  |
| Time                | <i>Action taken when out of limits</i> |      |       |       |                 | Time     | <i>Action taken when out of limits</i> |       |               |      |      |      |  |
| _:_                 |  |      |       |       |                 | _:_      |  |       |               |      |      |      |  |
| _:_                 |  |      |       |       |                 | _:_      |  |       |               |      |      |      |  |
| _:_                 |  |      |       |       |                 | _:_      |  |       |               |      |      |      |  |
| Initials            |  |      |       |       |                 | Initials |  |       |               |      |      |      |  |
| DATE:               |  |      |       |       | Lead's Initials |          | Manager's Initials                     |       | QA's Initials |      |      |      |  |

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GILES CHEMICAL ~ PREMIER MAGNESIA  
Lot Production Record

Title: **Dryer Salt Temp**

Number: **P12-FM-100-005**

Owner: **Jason Bumgarner**

Revision: **03**

Effective Date: **12/11/14**

Page: **1 of 1**



|                 | 7:00      | 9:00 | 11:00 | 13:00 | 15:00 | 17:00 | 19:00 | 21:00 | 23:00 | 1:00 | 3:00 | 5:00 |
|-----------------|-----------|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| Dryer Salt Temp | 37.9      |      |       |       |       |       |       |       |       |      |      |      |
|                 | 37.2      |      |       |       |       |       |       |       |       |      |      |      |
|                 | 36.4      |      |       |       |       |       |       |       |       |      |      |      |
|                 | 35.7      |      |       |       |       |       |       |       |       |      |      |      |
|                 | 35.0      |      |       |       |       |       |       |       |       |      |      |      |
|                 | 34.3      |      |       |       |       |       |       |       |       |      |      |      |
|                 | 33.6      |      |       |       |       |       |       |       |       |      |      |      |
|                 | 32.8      |      |       |       |       |       |       |       |       |      |      |      |
|                 | 32.1      |      |       |       |       |       |       |       |       |      |      |      |
|                 | Reading - |      |       |       |       |       |       |       |       |      |      |      |

|                  | 7:00      | 9:00 | 11:00 | 13:00 | 15:00 | 17:00 | 19:00 | 21:00 | 23:00 | 1:00 | 3:00 | 5:00 |
|------------------|-----------|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| Cooler Salt Temp | 27.9      |      |       |       |       |       |       |       |       |      |      |      |
|                  | 27.2      |      |       |       |       |       |       |       |       |      |      |      |
|                  | 26.4      |      |       |       |       |       |       |       |       |      |      |      |
|                  | 25.7      |      |       |       |       |       |       |       |       |      |      |      |
|                  | 25.0      |      |       |       |       |       |       |       |       |      |      |      |
|                  | 24.3      |      |       |       |       |       |       |       |       |      |      |      |
|                  | 23.6      |      |       |       |       |       |       |       |       |      |      |      |
|                  | 22.8      |      |       |       |       |       |       |       |       |      |      |      |
|                  | 22.1      |      |       |       |       |       |       |       |       |      |      |      |
|                  | Reading - |      |       |       |       |       |       |       |       |      |      |      |

|                      |           |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|-----------|--|--|--|--|--|--|--|--|--|--|--|
| 2000-lb Weight Check | 2030      |  |  |  |  |  |  |  |  |  |  |  |
|                      | 2024      |  |  |  |  |  |  |  |  |  |  |  |
|                      | 2017      |  |  |  |  |  |  |  |  |  |  |  |
|                      | 2011      |  |  |  |  |  |  |  |  |  |  |  |
|                      | 2004      |  |  |  |  |  |  |  |  |  |  |  |
|                      | 1997      |  |  |  |  |  |  |  |  |  |  |  |
|                      | 1991      |  |  |  |  |  |  |  |  |  |  |  |
|                      | 1984      |  |  |  |  |  |  |  |  |  |  |  |
|                      | 1977      |  |  |  |  |  |  |  |  |  |  |  |
|                      | Results - |  |  |  |  |  |  |  |  |  |  |  |

|                    |           |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|-----------|--|--|--|--|--|--|--|--|--|--|--|
| 50-lb Weight Check | 50.85     |  |  |  |  |  |  |  |  |  |  |  |
|                    | 50.68     |  |  |  |  |  |  |  |  |  |  |  |
|                    | 50.51     |  |  |  |  |  |  |  |  |  |  |  |
|                    | 50.35     |  |  |  |  |  |  |  |  |  |  |  |
|                    | 50.18     |  |  |  |  |  |  |  |  |  |  |  |
|                    | 50.01     |  |  |  |  |  |  |  |  |  |  |  |
|                    | 49.85     |  |  |  |  |  |  |  |  |  |  |  |
|                    | 49.68     |  |  |  |  |  |  |  |  |  |  |  |
|                    | 49.51     |  |  |  |  |  |  |  |  |  |  |  |
|                    | Results - |  |  |  |  |  |  |  |  |  |  |  |

| Time | Action taken when out of limits | Time | Action taken when out of limits |
|------|---------------------------------|------|---------------------------------|
| —:—  |                                 | —:—  |                                 |
| —:—  |                                 | —:—  |                                 |
| —:—  |                                 | —:—  |                                 |

|          |  |  |  |  |  |  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|--|--|--|--|--|
| Initials |  |  |  |  |  |  |  |  |  |  |  |  |
|----------|--|--|--|--|--|--|--|--|--|--|--|--|

|       |  |                    |  |                    |  |                  |  |
|-------|--|--------------------|--|--------------------|--|------------------|--|
| DATE: |  | Lead's<br>Initials |  | Manager's Initials |  | QA's<br>Initials |  |
|-------|--|--------------------|--|--------------------|--|------------------|--|

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GILES CHEMICAL ~ PREMIER MAGNESIA  
Lot Production Record

Title: Material Handler Log

Number: P12-FM-100-008

Owner: Jason Bumgarner

Revision: 03

Effective Date: 12/11/14



Page: 1 of 1



| Day Shift                   | MgO Supply                                 |       |                           | Acid Supply              |       |       |       |
|-----------------------------|--|-------|---------------------------|--------------------------|-------|-------|-------|
|                             | #1 ( P or B ) ~ Feed : _____ Level : _____ |       |                           | CHECKS                   | 07:00 | 11:00 | 15:00 |
|                             | #2 ( P or B ) ~ Feed : _____ Level : _____ |       |                           | Car, Chocks, Sign & Lock |       |       |       |
|                             | #3 ( P or B ) ~ Feed : _____ Level : _____ |       |                           | Tank Level graph         |       |       |       |
|                             | OFLOADING -                                |       |                           | OFLOADING -              |       |       |       |
|                             |  | 07:00 | 13:00                     | Acid at tanks            |       |       |       |
|                             | MgO rotary Valve check                     |       |                           | Acid Line check          |       |       |       |
|                             | Clean Mixing Pot                           |       |                           | Acid at Digesters        |       |       |       |
|                             | Air Compressor                             |       |                           | Boiler Checks            |       |       |       |
|                             |  | 07:00 | 15:00                     |                          | 07:00 | 11:00 | 15:00 |
| Main Tank Pressure          |  |       | Blow Down ( yes / no )    |                          |       |       |       |
| Test Water Drain Valve      |  |       | Pressure - Lead Boiler    |                          |       |       |       |
| Oil Level Check             |  |       | Pressure - Back up Boiler |                          |       |       |       |
| Visual leak check           |  |       | Water level on #1 / #2    |                          |       |       |       |
|                             |  |       | Level in Boiler Feed Tank |                          |       |       |       |
| Operator - _____ Time _____ |  |       |                           |                          |       |       |       |

| Night Shift                 | MgO Supply                                 |       |                           | Acid Supply              |       |       |       |
|-----------------------------|--|-------|---------------------------|--------------------------|-------|-------|-------|
|                             | #1 ( P or B ) ~ Feed : _____ Level : _____ |       |                           | CHECKS                   | 19:00 | 23:00 | 03:00 |
|                             | #2 ( P or B ) ~ Feed : _____ Level : _____ |       |                           | Car, Chocks, Sign & Lock |       |       |       |
|                             | #3 ( P or B ) ~ Feed : _____ Level : _____ |       |                           | Tank Level graph         |       |       |       |
|                             | OFLOADING -                                |       |                           | OFLOADING -              |       |       |       |
|                             |  | 19:00 | 01:00                     | Acid at tanks            |       |       |       |
|                             | MgO rotary Valve check                     |       |                           | Acid Line check          |       |       |       |
|                             | Clean Mixing Pot                           |       |                           | Acid at Digesters        |       |       |       |
|                             | Air Compressor                             |       |                           | Boiler Checks            |       |       |       |
|                             |  | 19:00 | 03:00                     |                          | 19:00 | 23:00 | 03:00 |
| Main Tank Pressure          |  |       | Blow Down ( yes / no )    |                          |       |       |       |
| Test Water Drain Valve      |  |       | Pressure - Lead Boiler    |                          |       |       |       |
| Oil Level Check             |  |       | Pressure - Back up Boiler |                          |       |       |       |
| Visual leak check           |  |       | Water level on #1 / #3    |                          |       |       |       |
|                             |  |       | Level in Boiler Feed Tank |                          |       |       |       |
| Operator - _____ Time _____ |  |       |                           |                          |       |       |       |

|                             |                 |  |                    |  |               |  |
|-----------------------------|-----------------|--|--------------------|--|---------------|--|
| DATE: _____ / _____ / _____ | Lead's Initials |  | Manager's Initials |  | QA's Initials |  |
|-----------------------------|-----------------|--|--------------------|--|---------------|--|

|   |                                   |                               |   |
|---|-----------------------------------|-------------------------------|---|
|  | GILES CHEMICAL ~ PREMIER MAGNESIA |                               |  |
|   | Lot Production Record             |                               |   |
|   | Title: <b>Process Check Log</b>   | Number: <b>P15-FM-100-055</b> |   |
|   | Owner: <b>Jason Bumgarner</b>     | Revision: <b>0</b>            |   |
|   | Effective Date: <b>07/21/15</b>   | Page: <b>1 of 1</b>           |   |

|           |                          |       |       |                             |       |       |
|-----------|--------------------------|-------|-------|-----------------------------|-------|-------|
| Day Shift | Crystal Production       |       |       | Environmental               |       |       |
|           |                          | 07:00 | 13:00 |                             | 07:00 | 13:00 |
|           | Gauges ( ✕/✓ )           |       |       | Dust Collector (psi)        |       |       |
|           | Dehumidifier ( ✕/✓ )     |       |       | Scrubber 1 - (in H2O)       |       |       |
|           | Chiller ( °F )           |       |       | Scrubber 2 - (in H2O)       |       |       |
|           | Salt Condition           |       |       |                             |       |       |
|           |                          |       |       |                             |       |       |
|           | Recovery and Waste Water |       |       | Other                       |       |       |
|           |                          | 07:00 | 13:00 |                             | 07:00 | 13:00 |
|           | Tank Check               |       |       | Screener ( greased? )       |       |       |
|           | Drain Box                |       |       | Centrifuge ( wash/Check )   |       |       |
|           | Drain Screen- Digester   |       |       |                             |       |       |
|           | Drain Screen - Dryer     |       |       |                             |       |       |
|           |                          |       |       | Operator - _____ Time _____ |       |       |

|             |                          |       |      |                             |       |      |
|-------------|--------------------------|-------|------|-----------------------------|-------|------|
| Night Shift | Crystal Production       |       |      | Environmental               |       |      |
|             |                          | 19:00 | 1:00 |                             | 19:00 | 1:00 |
|             | Gauges ( ✕/✓ )           |       |      | Dust Collector (psi)        |       |      |
|             | Dehumidifier ( ✕/✓ )     |       |      | Scrubber 1 - (in H2O)       |       |      |
|             | Chiller ( °F )           |       |      | Scrubber 2 - (in H2O)       |       |      |
|             | Salt Condition           |       |      |                             |       |      |
|             |                          |       |      |                             |       |      |
|             | Recovery and Waste Water |       |      | Other                       |       |      |
|             |                          | 19:00 | 1:00 |                             | 19:00 | 1:00 |
|             | Tank Check               |       |      | Screener ( greased? )       |       |      |
|             | Drain Box                |       |      | Centrifuge ( wash/Check )   |       |      |
|             | Drain Screen- Digester   |       |      |                             |       |      |
|             | Drain Screen - Dryer     |       |      |                             |       |      |
|             |                          |       |      | Operator - _____ Time _____ |       |      |

|                             |                    |  |                       |  |  |
|-----------------------------|--------------------|--|-----------------------|--|--|
| DATE: _____ / _____ / _____ | Lead's<br>Initials |  | Manager's<br>Initials |  |  |
|                             |                    |  |                       |  |  |

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**GILES CHEMICAL ~ PREMIER MAGNESIA****Company Form**Title: **Daily Dryer/Cooler Temperature Log**Number: **P15-FM-200-056**Owner: **Ashley Williams**Revision: **01**Effective Date: **09/23/2015**Page: **1 of 1****Date:**

From: \_\_\_\_\_ at 7:00am

To: \_\_\_\_\_ at 6:30am

| Time  | Dryer Temp | Cooler Temp | Time  | Dryer Temp | Cooler Temp |
|-------|------------|-------------|-------|------------|-------------|
| 7:00  |            |             | 19:00 |            |             |
| 7:30  |            |             | 19:30 |            |             |
| 8:00  |            |             | 20:00 |            |             |
| 8:30  |            |             | 20:30 |            |             |
| 9:00  |            |             | 21:00 |            |             |
| 9:30  |            |             | 21:30 |            |             |
| 10:00 |            |             | 22:00 |            |             |
| 10:30 |            |             | 22:30 |            |             |
| 11:00 |            |             | 23:00 |            |             |
| 11:30 |            |             | 23:30 |            |             |
| 12:00 |            |             | 0:00  |            |             |
| 12:30 |            |             | 0:30  |            |             |
| 13:00 |            |             | 1:00  |            |             |
| 13:30 |            |             | 1:30  |            |             |
| 14:00 |            |             | 2:00  |            |             |
| 14:30 |            |             | 2:30  |            |             |
| 15:00 |            |             | 3:00  |            |             |
| 15:30 |            |             | 3:30  |            |             |
| 16:00 |            |             | 4:00  |            |             |
| 16:30 |            |             | 4:30  |            |             |
| 17:00 |            |             | 5:00  |            |             |
| 17:30 |            |             | 5:30  |            |             |
| 18:00 |            |             | 6:00  |            |             |
| 18:30 |            |             | 6:30  |            |             |

Manager Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Quality Signature: \_\_\_\_\_

Date: \_\_\_\_\_

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