

12/14/82 K2R33 5562 5521\* LBS  
 (DATE) (LOT) (EST. WT)  
 COMTYP JOB NAME: 01YE69BDMT  
 BLENDED BACK: CG 01, PQ 98, 94, 4C-10-B, 34399, 200  
 (CODE) (LOT) (POUNDS)

| EQUIP<br>MENT | NAME: MOLYBDATE ORANGE                                                  | USE<br>LBS | N-CODE | ACCT<br>LBS |
|---------------|-------------------------------------------------------------------------|------------|--------|-------------|
| PREP          | 1 OBTAIN SODIUM SULFATE FOR S-13                                        | 84         | 108-A  | 84          |
| 1             | 2 CALCULATE & SET ON BADGER METER FOR S-16<br>(NITRIC ACID WEAK) 64.40% | 93         | 33-D   | 60          |
|               | 3 OBTAIN SODIUM CHLORIDE FOR S-33                                       | 734        | 4-A    | 734         |
|               | 4 OBTAIN SODA ASH FOR S-37                                              | 146        | 3-A    | 146         |
|               | 5 OBTAIN SODIUM SILICATE FOR S-39                                       | 237        | 32-D   | 237         |
|               | 6 OBTAIN SODA ASH FOR S-43                                              | 350        | 3-A    | 350         |
|               | 7 OBTAIN ANTIMONY TRIOXIDE FOR S-46                                     | 70         | 711-B  | 70          |
| 351           | 8 WEIGH SODIUM CHROMATE INTO V-351.                                     | 4937       | 10-D   | 1885        |
| 2             | OPTR _____, MK 246, 38.18%                                              |            |        |             |
|               | OPTR _____, MK _____, _____%                                            |            |        |             |
| 359           | WEIGH IN SODIUM MOLYBDATE SOLUTION                                      | 876        | 423-D  | 303         |
| 3             | OPTR _____, MK 63, T-360, 34.59%                                        |            |        |             |
|               | OPTR _____, MK _____, T-_____, _____%                                   |            |        |             |
| 358           | 10 RUN 10" (500 G) WATER INTO V-358                                     |            |        |             |
| 4             | 11 RUN V-359 INTO V-351 & PUMP IN V-351                                 |            |        |             |
|               | 12 ADJ TO 55" (2600 G)                                                  |            |        |             |
|               | 13 SIFT IN N-108-A FROM S 1                                             |            |        |             |
|               | 14 STIR 5 MIN & RECORD: PH 10.5 (9.0-10.0)                              |            |        |             |
|               | 15 ADJ TO PH 9.8-9.9 & RECORD: PH 9.9                                   |            |        |             |
|               | (CAUSTIC SODA SOLUTION) ASSUME 50%                                      |            | 7-D    |             |
|               | ASSUME 66%                                                              | 2          | 33-D   |             |
|               | 16 ADD N-33-D FROM S 2 USING BADGER METER                               |            |        |             |
|               | 17 ADJ TO 66" (3121 G) AT 67-69°F                                       |            |        |             |
|               | RECORD: VOL 66" & 68" *F                                                |            |        |             |
|               | 18 STIR 5 MIN & RECORD: PH 7.4 (7.4-7.6) &                              |            |        |             |
|               | G/ML 1.082 (1.080-1.083)                                                |            |        |             |
|               | NOTE IF G/ML OUT OF LIMITS FILL OUT CHECK                               |            |        |             |
|               | LIST & ATTACH. TAKE 1 QT SAMPLE                                         |            |        |             |
| SV            | 19 RUN 20" (996 G) WATER INTO V-247                                     |            |        |             |
| 5             | RECORD N-41-D STORAGE TANK TO PUMP FROM.                                |            |        |             |
|               | CIRCLE ONE: 402 410 411 420 424 425                                     |            |        |             |
|               | 20 CHECK WITH CU SUPV:                                                  |            |        |             |
|               | *STORAGE TANK MUST CONTAIN AT LEAST 2376                                |            |        |             |
|               | GAL: 402=49", 410=25", 411=48", 420=25",                                |            |        |             |
|               | 424=25", 425=31"                                                        |            |        |             |
|               | *STORAGE TANK MUST HAVE STIRRED AT LEAST                                |            |        |             |
|               | 20 MIN SINCE LAST ADDITION OR ADJUSTMENT                                |            |        |             |
|               | *STORAGE TANK MUST BE ISOLATED UNTIL ALL                                |            |        |             |
|               | PUMPING FOR THIS BATCH IS COMPLETE                                      |            |        |             |
|               | 21 SET METER FOR 300 G & PUMP TO SV 247                                 |            |        |             |
|               | 22 AT APPROX 100 G WHILE CONTINUING TO PUMP,                            |            |        |             |
|               | CHECK PH & DENSITY. RECORD BELOW, IF NOT                                |            |        |             |
|               | IN RANGE, STOP PUMPING & SEE SUPV.                                      |            |        |             |
|               | * PH: 2.3 (2.2-3.7)                                                     |            |        |             |
|               | * DENSITY: 1.282 /ML (1.270-1.328)                                      |            |        |             |

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| EQUIP | USE | N-   | ACCT |
|-------|-----|------|------|
| MENT  | LBS | CODE | LBS  |
|       |     |      |      |

23 IF S-22 OK & WHEN S-21 COMPLETE, RECORD DENSITY 1.282 G/ML ON TRAPPED SAMPLE FROM END OF S-21 PUMPING.

24 USING DENSITY FROM S-23, FIND METER SETTING FOR SECOND PUMPING IN TABLE BELOW. NOTE: TABLE ACCOUNTS FOR 300 G ALREADY PUMPED IN S-21. CIRCLE DENSITY & SETTING IN TABLE BELOW.

\*\*\*\* TABLE \*\*\*\*

| G/ML  | SETTING     | G/ML  | SETTING | G/ML  | SETTING |
|-------|-------------|-------|---------|-------|---------|
| 1.270 | 1678        | 1.291 | 1534    | 1.312 | 1410    |
| 1.271 | 1670        | 1.292 | 1527    | 1.313 | 1404    |
| 1.272 | 1663        | 1.293 | 1521    | 1.314 | 1399    |
| 1.273 | 1656        | 1.294 | 1515    | 1.315 | 1394    |
| 1.274 | 1649        | 1.295 | 1509    | 1.316 | 1388    |
| 1.275 | 1641        | 1.296 | 1503    | 1.317 | 1383    |
| 1.276 | 1634        | 1.297 | 1497    | 1.318 | 1378    |
| 1.277 | 1627        | 1.298 | 1490    | 1.319 | 1372    |
| 1.278 | 1620        | 1.299 | 1484    | 1.320 | 1367    |
| 1.279 | 1614        | 1.300 | 1478    | 1.321 | 1362    |
| 1.280 | 1607        | 1.301 | 1473    | 1.322 | 1357    |
| 1.281 | 1600        | 1.302 | 1467    | 1.323 | 1351    |
| 1.282 | <u>1593</u> | 1.303 | 1461    | 1.324 | 1346    |
| 1.283 | 1586        | 1.304 | 1455    | 1.325 | 1341    |
| 1.284 | 1580        | 1.305 | 1449    | 1.326 | 1336    |
| 1.285 | 1573        | 1.306 | 1444    | 1.327 | 1331    |
| 1.286 | 1566        | 1.307 | 1438    | 1.328 | 1326    |
| 1.286 | 1566        | 1.307 | 1438    | 1.328 | 1326    |
| 1.287 | 1559        | 1.308 | 1432    | 1.329 | 1543    |
| 1.288 | 1553        | 1.309 | 1427    | 1.330 | 1537    |
| 1.289 | 1546        | 1.310 | 1421    | 1.331 | 1532    |
| 1.290 | 1540        | 1.311 | 1415    | 1.332 | 1526    |

25 SET METER & PUMP 1593 G (RECORD FROM TABLE) FLUSH LINE WITH WATER INTO SV FOR APPROXIMATELY 30 SECONDS

26 ADJ LEAD NITRATE TO 76" F.H. (3625 G) AT 67-69°F. RECORD: 69 \*F

27 STIR 5 MIN & RECORD PH: 2.6 (2.2-3.7)

28 IF NECESSARY ADJ TO PH 3.0-3.1 ASSUME 66% & RECORD PH: 2.9 ASSUME 50%

NOTE: DILUTE N-7-D 10:1 WITH WATER BEFORE ADDING

29 RECORD: 1.145 G/ML (1.143-1.144) IF OUT OF SPEC FILL OUT CHECK LIST & ATTACH.

30 STIR AT 67-69°F FOR S-31. TAKE 1 QT SAMPLE.

31 OBTAIN 1 QT SAMPLES OF S-18 & S-30 SOLUTIONS & TITRATE TWICE

NOTIFY SUPV IF ML N-10-D IS NOT IN RANGE

7.1-7.4 OR IF THE TWO TITRATIONS DIFFER BY

MORE THAN 0.10 ML N-10-D (IF YES, FLUSH ALL

EQUIPMENT & REPEAT TITRATIONS). DO NOT PROCEED

IF N-10-D TITRATION IS OUT OF RANGE

ADJUST V-358 FOR A TITRATION PH OF 2.10 TO 2.20

FROM FINAL IN-LINE TITRATION, RECORD LOWEST

PH 2.12 & ML N-10-D 2.64

41-D 5110  
57-A

33-D  
7-D

33-D

| EQUIP<br>MENT |    |                                                                                                                                                                                                                                        | USE<br>LBS                   | N-<br>CODE          | PACCT<br>LBS |
|---------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------|--------------|
| SV<br>6       | 32 | WHEN S-31 TITRATION OK, STRIKE V-358 THRU BOTH UNDERSURFACE DISTRIBUTORS INTO SV IN 16-18 MIN<br>RECORD: START <u>10:40 AM</u> TOTAL MIN <u>18</u><br>NOTE: STRIKE TIME UP WHEN 1/2 VAT BOTTOM SHOWS & BUBBLES APPEAR IN SIGHT GLASSES |                              |                     |              |
|               | 33 | IMMEDIATELY DUMP IN N-4-A FROM S 3 & SET TIMER FOR 15 MINUTES                                                                                                                                                                          |                              |                     |              |
|               | 34 | DURING S 33, WASH IN V-358                                                                                                                                                                                                             |                              |                     |              |
|               | 35 | STIR 2 MIN & RECORD PH <u>7.7</u> (1.8-2.5)<br>PBXS, <u>+</u> (MUST BE +)                                                                                                                                                              |                              |                     |              |
|               | 36 | STIR TOTAL OF 15 MIN FROM S-33 &<br>RECORD: TEMP <u>73</u> *F (67-73*F)                                                                                                                                                                |                              |                     |              |
|               | 37 | DUMP N-3-A FROM S-4                                                                                                                                                                                                                    |                              |                     |              |
|               | 38 | STIR 3 MIN                                                                                                                                                                                                                             |                              |                     |              |
|               | 39 | POUR IN N-32-D FROM S-5                                                                                                                                                                                                                |                              |                     |              |
|               | 40 | STIR 2 MIN                                                                                                                                                                                                                             |                              |                     |              |
|               | 41 | RUN IN LIQUID ALUM USING BADGER METER                                                                                                                                                                                                  | 734                          | 115-D               | 367          |
|               | 42 | STIR 3 MIN & FLUSH ALUM LINE WITH WATER                                                                                                                                                                                                |                              |                     |              |
|               | 43 | DUMP IN N-3 FROM S-6                                                                                                                                                                                                                   |                              |                     |              |
|               | 44 | STIR 4 MIN FOR S-48                                                                                                                                                                                                                    |                              |                     |              |
| 390<br>7      | 45 | RUN IN HYDROCHLORIC ACID USING WEIGHT & FLOW CONTROL PANEL MK <u>2</u> , <u>3101</u> %<br>MK _____ %                                                                                                                                   | <u>339</u>                   | 28-D                | 105          |
|               | 46 | DURING S-44 SIFT N-711-B FROM S-7 INTO V-390 WITH AGITATOR ON IN 1-2 MIN                                                                                                                                                               |                              | 28-D                |              |
|               | 47 | STIR 1-2 MIN TO MILKY SOLUTION                                                                                                                                                                                                         |                              |                     |              |
| SV<br>8       | 48 | WHEN S-44 COMPLETE, IMMEDIATELY RUN IN N-711-B SOLUTION GRADUALLY OVER 5 MIN PERIOD INTO SV WATCH FOAM!!! IF FOAMING IS EXCESSIVE, STOP UNTIL FOAM SUBSIDES.                                                                           | <u>165</u><br><del>530</del> | <u>165</u><br>128-A | <u>330</u>   |
|               | 49 | DUMP IN BLANC FIXE N                                                                                                                                                                                                                   |                              |                     |              |
|               | 50 | WHEN SCHEDULED, DUMP IN BLEND BACK LISTED ON TOP OF PAGE 1<br>RECORD: CODE <u>4C-16-B</u> , LOT <u>34399</u> , <u>200</u> #                                                                                                            |                              |                     |              |
|               | 51 | STIR 20 MIN                                                                                                                                                                                                                            |                              |                     |              |
|               | 52 | RECORD: PH <u>5.6</u> (5.8-6.0)                                                                                                                                                                                                        |                              |                     |              |
|               | 53 | IF NECESSARY, ADJ TO PH <u>5.8-6.0</u> ASSUME 50%<br>& RECORD: PH <u>5.8</u> ASSUME 66%                                                                                                                                                | <u>70</u>                    | 7-D                 | <u>15</u>    |
|               | 54 | FLOOD TO 153" (7298 G) & STOP AGITATOR                                                                                                                                                                                                 |                              | 33-D                |              |
|               |    | START <u>5:30 AM</u> FINISH <u>7:00 AM</u> OPTR <u>301</u><br><u>7:20 AM</u> <u>7:25 PM</u> <u>8:16 PM</u>                                                                                                                             |                              |                     |              |