| miuy                                   |  |   |  |
|--|--|---|--|
| Water                                  | Na <sub>2</sub> CO <sub>3</sub>        | 1 M KOH                                     | 4 M KOH                                |
|  |  |   |  |
|  |  |   |  |
| 2002 5002 5005                         | 2000 2000 2000                         | 2002 2002 2002                              | 2003 2003 2003                         |
| 1 0 2 0 3 0 0                          | 100200300                              | $1 \\ 0 \\ 0 \\ 2 \\ 0 \\ 0 \\ 3 \\ 0 \\ 0$ | 1 0 2 0 3 0 0                          |
|  | 000 000 000<br>200 200 200             | 000 000 000<br>8WS 8WS 8WS                  | 8W8 8W8 8W8                            |
| RG1 RG2 RG3                            | RG1 RG2 RG3                            | RG1 RG2 RG3                                 | RG1 RG2 RG3                            |
| 000 000 000                            | 000 000 000                            | 000 000 000                                 | 000 000 000                            |
| 000000000                              | 000 000 000                            | 000 000 000                                 | 000 000 000                            |
| HJ1 HJ2 HJ3                            | HJ1   HJ2   HJ3                        | HJ1   HJ2   HJ3                             | HJ1   HJ2   HJ3                        |
| 000 000 000                            | 000 000 000                            | 000 000 000                                 | 000 000 000                            |
| 000000000                              | 000 000 000                            | 000 000 000                                 | 000 000 000                            |
| HRG1 HRG2 HRG3                         | HRG1 HRG2 HRG3                         | HRG1 HRG2 HRG3                              | HRG1 HRG2 HRG3                         |
| 000 000 000                            | 000 000 000                            | 000 000 000                                 | 000 000 000                            |
| 000000000                              | 000 000 000                            | 000 000 000                                 | 000 000 000                            |
| 100J1 100J2 100J3                      | 100J1 100J2 100J3                      | 100J1 100J2 100J3                           | 100J1 100J2 100J3                      |
| 000 000 000                            | 000 000 000                            | 000 000 000                                 | 000 000 000                            |
| oorg oorg oorg                         | <del>oorg oorg oorg</del>              | OORG OORG OORG                              | oorg oorg oorg                         |
| 100200300                              | 10020300                               | 10020300                                    | 10020300                               |
| 000 000 000                            | 000 000 000                            | 000 000 000                                 | 000 000 000                            |
| 000000000                              | 000 000 000                            | 000 000 000                                 | 000 000 000                            |
| 40J1 40J2 40J3                         | 40J1 40J2 40J3                         | 40 J1 40 J2 40 J3                           | 40J1 40J2 40J3                         |
| 000 000 000                            | 000 000 000                            | 000 000 000                                 | 000 000 000                            |
| 000 000 000                            | 000 000 000                            | 000 000 000                                 | 000 000 000                            |
| 40 RG 1 40 RG 2 40 RG 3                | 40 RG 1 40 RG 2 40 RG 3                | 40 RG 1 40 RG 2 40 RG 3                     | 40 RG 1 40 RG 2 40 RG 3                |
| 00000000000000000000000000000000000000 | 00000000000000000000000000000000000000 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0       | 00000000000000000000000000000000000000 |

| 19 | E                             | E                               | E                               | ы                             | E                               | E                               | E                               | E                               | E                              | ы                              | E                               | ы                              | ы                               | E                               | E                               | E                              |
|----|-------------------------------|---------------------------------|---------------------------------|-------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------------------|--------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------|
| 18 | 20WS J<br>1 1 M<br>KOH 1      | 20WS J<br>2 1 M<br>KOH 1-<br>25 | 20WS J<br>2 1 M<br>KOH 1-5      | 20WS J<br>21M<br>KOH1         | 20WS J<br>3 1 M<br>KOH 1-<br>25 | 20WS J<br>3 1 M<br>KOH 1-5      | 3 1 M                           | 20WS J<br>14M<br>KOH 1-<br>25   | 20WS J<br>14M<br>KOH 1-5       | 20WS J<br>14M<br>KOH 1         | 20WS J<br>24 M<br>KOH 1-<br>25  | 20WS J<br>24 M<br>KOH 1-5      | 20WS J<br>24M<br>KOH 1          | 20WS J<br>3 4 M<br>KOH 1-<br>25 | 20WS J<br>3 4 M<br>KOH 1-5      | 20W5 J<br>34 M<br>KOH 1        |
| 17 | 20WS<br>RG 1 1<br>M KOH<br>1  | 20WS<br>RG 2 1<br>M KOH<br>1-25 | 20WS<br>RG 2 1<br>M KOH<br>1-5  | 20WS<br>RG 2 1<br>M KOH<br>1  | 20WS<br>RG 3 1<br>M KOH<br>1-25 | 20WS<br>RG 3 1<br>M KOH<br>1-5  | 20WS<br>RG 3 1<br>M KOH<br>1    | 20WS<br>RG 1 4<br>M KOH<br>1-25 | 20WS<br>RG 1 4<br>M KOH<br>1-5 | 20WS<br>RG14<br>MKOH<br>1      | 20WS<br>RG 2 4<br>M KOH<br>1-25 | 20WS<br>RG 2 4<br>M KOH<br>1-5 | 20WS<br>RG 2 4<br>M KOH<br>1    | 20WS<br>RG 3 4<br>M KOH<br>1-25 | 20WS<br>RG 3 4<br>M KOH<br>1-5  | 20WS<br>RG 3 4<br>M KOH<br>1   |
| 16 | 20WS J<br>2 NaOH<br>1-5       | 20WS J<br>2 NaOH<br>1           | 20WS J<br>3 NaOH<br>1-25        | 20WS J<br>3 NaOH<br>1-5       | 20WS J<br>3 NaOH<br>1           | 20WS J<br>1 Water<br>1-25       | 20WS J<br>1 Water<br>1-5        | 20WS J<br>1 Water<br>1          | 20WS J<br>2 Water<br>1-25      | 20WS J<br>2 Water<br>1-5       | 20WS J<br>2 Water<br>1          | 20WS J<br>3 Water<br>1-25      | 20WS J<br>3 Water<br>1-5        | 20WS J<br>3 Water<br>1          | 20WS J<br>1 1 M<br>KOH 1-<br>25 | 20WS J<br>1 1 M<br>KOH 1-5     |
| 15 | 20WS<br>RG 2<br>NaOH<br>1-5   | 20WS<br>RG 2<br>NaOH 1          | 20WS<br>RG 3<br>NaOH<br>1-25    | 20WS<br>RG 3<br>NaOH<br>1-5   | 20WS<br>RG 3<br>NaOH 1          | 20WS<br>RG 1<br>Water<br>1-25   | 20WS<br>RG 1<br>Water<br>1-5    | 20WS<br>RG 1<br>Water 1         | 20WS<br>RG 2<br>Water<br>1-25  | 20WS<br>RG 2<br>Water<br>1-5   | 20WS<br>RG 2<br>Water 1         | 20WS<br>RG 3<br>Water<br>1-25  | 20WS<br>RG 3<br>Water<br>1-5    | 20WS<br>RG 3<br>Water 1         | 20WS<br>RG 1 1<br>M KOH<br>1-25 | 20WS<br>RG 1 1<br>M KOH<br>1-5 |
| 14 | HJ31<br>MKOH<br>1-25          | HJ31<br>MKOH<br>1-5             | HJ31<br>MKOH<br>1               | HJ14<br>MKOH<br>1-25          | HJ14<br>MKOH<br>1-5             | HJ14<br>MKOH<br>1               | HJ24<br>MKOH<br>1-25            | HJ24<br>MKOH<br>1-5             | HJ24<br>MKOH<br>1              | HJ34<br>MKOH<br>1-25           | HJ34<br>MKOH<br>1-5             | HJ34<br>MKOH                   | 20WS J<br>1 NaOH<br>1-25        | 20WS J<br>1 NaOH<br>1-5         | 20WS J<br>1 NaOH<br>1           | 20W5 J<br>2 NaOH<br>1-25       |
| 13 | H RG 3<br>1 M<br>KOH 1-<br>25 | H RG 3<br>1 M<br>KOH 1-5        | HRG3<br>1M<br>KOH1              | H RG 1<br>4 M<br>KOH 1-<br>25 | H RG 1<br>4 M<br>KOH 1-5        | HRG1<br>4M<br>KOH1              | H RG 2<br>4 M<br>KOH 1-<br>25   | H RG 2<br>4 M<br>KOH 1-5        | HRG2<br>4M<br>KOH1             | H RG 3<br>4 M<br>KOH 1-<br>25  | H RG 3<br>4 M<br>KOH 1-5        | HRG3<br>4M<br>KOH1             | 20WS<br>RG 1<br>NaOH<br>1-25    | 20WS<br>RG 1<br>NaOH<br>1-5     | 20WS<br>RG1<br>NaOH1            | 20W5<br>RG 2<br>NaOH<br>1-25   |
| 12 | HJ3<br>NaOH1                  | HJi<br>Water<br>1-25            | HJ1<br>Water<br>1-5             | HJ1<br>Water 1                | HJ2<br>Water<br>1-25            | HJ2<br>Water<br>1-5             | HJ2<br>Water 1                  | HJ3<br>Water<br>1-25            | HJ3<br>Water<br>1-5            | HJ3<br>Water 1                 | HJ11<br>MKOH<br>1-25            | HJ11<br>MKOH<br>1-5            | HJ11<br>MKOH<br>1               | HJ21<br>MKOH<br>1-25            | HJ21<br>MKOH<br>1-5             | HJ21<br>MKOH<br>1              |
| 11 | HRG3<br>NaOH1                 | HRG1<br>Water<br>1-25           | HRG1<br>Water<br>1-5            | HRG1<br>Water 1               | HRG 2<br>Water<br>1-25          | H RG 2<br>Water<br>1-5          | HRG2<br>Water 1                 | HRG3<br>Water<br>1-25           | HRG3<br>Water<br>1-5           | HRG3<br>Water 1                | H RG 1<br>1 M<br>KOH 1-<br>25   | H RG 1<br>1 M<br>KOH 1-5       | HRG1<br>1M<br>KOH1              | H RG 2<br>1 M<br>KOH 1-<br>25   | H RG 2<br>1 M<br>KOH 1-5        | HRG2<br>1M<br>KOH1             |
| 10 | 100 J 1<br>4 M<br>KOH 1-5     | 100 J 1<br>4 M<br>KOH 1         | 100 J 2<br>4 M<br>KOH 1-<br>25  | 100 J 2<br>4 M<br>KOH 1-5     | 100 J 2<br>4 M<br>KOH 1         | 100 J 3<br>4 M<br>KOH 1-<br>25  | 100 J 3<br>4 M<br>KOH 1-5       | 100 J 3<br>4 M<br>KOH 1         | HJ1<br>NaOH<br>1-25            | HJ1<br>NaOH<br>1-5             | HJ1<br>NaOH1                    | HJ2<br>NaOH<br>1-25            | HJ2<br>NaOH<br>1-5              | HJ2<br>NaOH1                    | HJ3<br>NaOH<br>1-25             | HJ3<br>NaOH<br>1-5             |
| 9  | 100 RG<br>14 M<br>KOH 1-5     | 100 RG<br>14 M<br>KOH 1         | 100 RG<br>2 4 M<br>KOH 1-<br>25 | 100 RG<br>2 4 M<br>KOH 1-5    | 100 RG<br>24 M<br>KOH 1         | 100 RG<br>3 4 M<br>KOH 1-<br>25 | 100 RG<br>3 4 M<br>KOH 1-5      | 100 RG<br>3 4 M<br>KOH 1        | HRG1<br>NaOH<br>1-25           | HRG1<br>NaOH<br>1-5            | HRG1<br>NaOH1                   | HRG 2<br>NaOH<br>1-25          | H RG 2<br>NaOH<br>1-5           | HRG 2<br>NaOH 1                 | HRG3<br>NaOH<br>1-25            | H RG 3<br>NaOH<br>1-5          |
| 8  | 100 J 2<br>Water<br>1-25      | 100 J 2<br>Water<br>1-5         | 100 J 2<br>Water 1              | 100 J 3<br>Water<br>1-25      | 100 J 3<br>Water<br>1-5         | 100 J 3<br>Water 1              | 100 J 1<br>1 M<br>KOH 1-<br>25  | 100 J 1<br>1 M<br>KOH 1-5       | 100 J 1<br>1 M<br>KOH 1        | 100 J 2<br>1 M<br>KOH 1-<br>25 | 100 J 2<br>1 M<br>KOH 1-5       | 100 J 2<br>1 M<br>KOH 1        | 100 J 3<br>1 M<br>KOH 1-<br>25  | 100 J 3<br>1 M<br>KOH 1-5       | 100 J 3<br>1 M<br>KOH 1         | 100 J 1<br>4 M<br>KOH 1-<br>25 |
| 7  | 100 RG<br>2 Water<br>1-25     |                                 | 100 RG<br>2 Water<br>1          |                               | 100 RG<br>3 Water<br>1-5        |                                 | 100 RG<br>1 1 M<br>KOH 1-<br>25 | 100 RG<br>1 1 M<br>KOH 1-5      | 1 1 M                          | 2 1 M                          | 100 RG<br>2 1 M<br>KOH 1-5      | 2 1 M                          | 100 RG<br>3 1 M<br>KOH 1-<br>25 | 100 RG<br>3 1 M<br>KOH 1-5      | 100 RG<br>3 1 M<br>KOH 1        | 100 RG<br>14 M<br>KOH 1-<br>25 |
| 6  | 40 J 2 4<br>M KOH<br>1        | 40 J 3 4<br>M KOH<br>1-25       | 40 J 3 4<br>M KOH<br>1-5        | 40J34<br>M KOH<br>1           | 100 J 1<br>NaOH<br>1-25         | 100 J 1<br>NaOH<br>1-5          | 100 J 1<br>NaOH 1               | 100 J 2<br>NaOH<br>1-25         | 100 J 2<br>NaOH<br>1-5         | 100 J 2<br>NaOH 1              | 100 J 3<br>NaOH<br>1-25         | 100 J 3<br>NaOH<br>1-5         | 100 J 3<br>NaOH 1               | 100 J 1<br>Water<br>1-25        | 100 J 1<br>Water<br>1-5         | 100 J 1<br>Water 1             |
| 5  | 40 RG 2<br>4 M<br>KOH 1       | 40 RG 3<br>4 M<br>KOH 1-<br>25  | 40 RG 3<br>4 M<br>KOH 1-5       | 4 M                           | 100 RG<br>1 NaOH<br>1-25        | 100 RG<br>1 NaOH<br>1-5         | 100 RG<br>1 NaOH<br>1           | 100 RG<br>2 NaOH<br>1-25        | 100 RG<br>2 NaOH<br>1-5        | 100 RG<br>2 NaOH<br>1          | 100 RG<br>3 NaOH<br>1-25        | 100 RG<br>3 NaOH<br>1-5        | 100 RG<br>3 NaOH<br>1           | 100 RG<br>1 Water<br>1-25       | 100 RG<br>1 Water<br>1-5        | 100 RG<br>1 Water<br>1         |
| 4  | 40 J 3<br>Water<br>1-5        | 40J3<br>Water 1                 | 40 J 1 1<br>M KOH<br>1-25       | 40 J 1 1<br>M KOH<br>1-5      | 40 J 1 1<br>M KOH<br>1          | 40 J 2 1<br>M KOH<br>1-25       | 40 J 2 1<br>M KOH<br>1-5        | 40 J 2 1<br>M KOH<br>1          | 40 J 3 1<br>M KOH<br>1-25      | 40 J 3 1<br>M KOH<br>1-5       | 40 J 3 1<br>M KOH<br>1          | 40 J 1 4<br>M KOH<br>1-25      | 40 J 1 4<br>M KOH<br>1-5        | 40 J 1 4<br>M KOH<br>1          | 40 J 2 4<br>M KOH<br>1-25       | 40 J 2 4<br>M KOH<br>1-5       |
| 3  | 40 RG 3<br>Water<br>1-5       | 40 RG 3<br>Water 1              | 40 RG 1<br>1 M<br>KOH 1-<br>25  | 40 RG 1<br>1 M<br>KOH 1-5     | 40 RG 1<br>1 M<br>KOH 1         | 40 RG 2<br>1 M<br>KOH 1-<br>25  | 40 RG 2<br>1 M<br>KOH 1-5       | i M                             | 40 RG 3<br>1 M<br>KOH 1-<br>25 | 40 RG 3<br>1 M<br>KOH 1-5      | 40 RG 3<br>1 M<br>KOH 1         | 40 RG 1<br>4 M<br>KOH 1-<br>25 | 40 RG 1<br>4 M<br>KOH 1-5       | 4 M                             | 40 RG 2<br>4 M<br>KOH 1-<br>25  | 40 RG 2<br>4 M<br>KOH 1-5      |
| 2  | 40 J 1<br>NaOH<br>1-25        | 40 J 1<br>NaOH<br>1-5           | 40Ji<br>NaOHi                   | 40 J 2<br>NaOH<br>1-25        | 40 J 2<br>NaOH<br>1-5           | 40 J 2<br>NaOH 1                | 40 J 3<br>NaOH<br>1-25          | 40 J 3<br>NaOH<br>1-5           | 40 J 3<br>NaOH 1               | 40 J 1<br>Water<br>1-25        | 40 J 1<br>Water<br>1-5          | 40 J i<br>Water i              | 40 J 2<br>Water<br>1-25         | 40 J 2<br>Water<br>1-5          | 40J2<br>Water 1                 | 40 J 3<br>Water<br>1-25        |
| 1  | 40 RG 1<br>NaOH<br>1-25       | 40 RG 1<br>NaOH<br>1-5          | <b>40 RG 1</b><br>NaOH 1        | 40 RG 2<br>NaOH<br>1-25       | 40 RG 2<br>NaOH<br>1-5          | 40 RG 2<br>NaOH 1               | 40 RG 3<br>NaOH<br>1-25         | 40 RG 3<br>NaOH<br>1-5          | 40 RG 3<br>NaOH 1              | 40 RG 1<br>Water<br>1-25       | 40 RG 1<br>Water<br>1-5         | 40 RG 1<br>Water 1             | 40 RG 2<br>Water<br>1-25        | 40 RG 2<br>Water<br>1-5         | 40 RG 2<br>Water 1              | 40 RG 3<br>Water<br>1-25       |
|    | Α                             | В                               | С                               | D                             | E                               | F                               | G                               | Н                               | ı                              | J                              | K                               | L                              | М                               | N                               | 0                               | P                              |