```
O1 | SELECT ros.r_os_id, ros.production_line_name, ccm.sequence_id, ros.reference_date, NVL(TO_CHAR(slab.piece_id),'NA') piece_id, NVL(TO_CHAR(slab.material_id),'NA') material_id, NVL(TO_CHAR(slab.mold_width),'NA') mold_width, NVL(TO_CHAR(mat.width),'NA') width, NVL(TO_CHAR(mat.thickness), 'NA') thickness, NVL(TO_CHAR(mat.weight),'NA') weight, NVL(TO_CHAR(mat.length),'NA') length, NVL(TO_CHAR(mat.heat_id),'NA') heat_id, NVL( TO_CHAR(mat.steel_grade_id_int),'NA') slab_transition

O2 | FROM L3MAIN.r_os ros

O3 | LEFT JOIN L3MAIN.r_ccm ccm ON ros.r_os_id=ccm.r_os_id

O4 | LEFT JOIN L3MAIN.r_ccm_slab slab ON ros.r_os_id=slab.r_os_id

O5 | LEFT JOIN L3MAIN.r_mat mat ON ros.r_os_id=mat.r_os_id

WHERE sequence_id IS NOT NULL;
```

```
01 | SELECT DISTINCT ccm2.sequence_id, sl.production_line_name, sl.piece_id, sl.material_id, sl.steel_grade_id_int, sl.heat_id, sl.slab_transition, sl.
         width, sl.length, sl.weight, sl.thickness, sl.thickness_hsm, sl.cut_time
02 | FROM r_ccm ccm2
03 | LEFT JOIN (
04 |
             SELECT ros.production_line_name, ccm.sequence_id, NVL(TO_CHAR(slab.piece_id), 'null') piece_id, NVL(TO_CHAR(slab.material_id), 'null')
         material id, NVL(TO CHAR(slab.mold width), 'null') mold width, NVL(TO CHAR(slab.casting speed), 'null') casting speed, NVL(TO CHAR(slab.
         exit_temp), 'null') exit_temp, NVL(TO_CHAR(mat.steel_grade_id_int), 'null') steel_grade_id_int, NVL(TO_CHAR(mat.heat_id), 'null') heat_id, NVL(
         TO_CHAR(mat.slab_transition), 'null') slab_transition, NVL(TO_CHAR(mat.width), 'null') width, NVL(TO_CHAR(mat.length), 'null') length, NVL(
         TO_CHAR(mat.weight), 'null') weight, NVL(TO_CHAR(mat.thickness), 'null') thickness, NVL(TO_CHAR(mat2.thickness), 'null') as thickness_hsm, NVL(
         TO_CHAR(slab.cut_time), 'null') cut_time
05 I
             FROM ros ros, rccm_slab slab, rccm ccm, rmat mat, rmat mat2, ros ros2
06 l
             WHERE mat2.material id=mat.material id AND mat2.r os id=ros2.r os id AND ros2.production line name LIKE 'HSM%' AND mat.material id=slab.
         material_id AND slab.r_os_id=ccm.r_os_id AND mat.material_type='S' AND mat.modification_date=(
07 I
                     SELECT MAX(mat2.modification date)
08 I
                     FROM r mat mat2
09 |
                     WHERE mat2.material_type='S' AND mat2.material_id=slab.material_id
             ) AND ros.r os id=mat.r os id AND ros.production line name LIKE 'CCM1'
10 l
11 | ) sl ON sl.sequence_id=ccm2.sequence_id
12 | WHERE ccm2.ladle_arrival_time>to_date('01.07.2017', 'DD.MM.YYYY');
```