



# 双阳盆地双参1井钻探工程施工日报

(时间: 2016年2月21日 7:00 至 2016年2月22日 7:00 天气:小雪)

实施单位: 中国地质调查局油气资源调查中心 钻探: 中石化中原石油工程有限公司 录井: 中石化河南石油工程有限公司  
工程总指挥: 周新桂 首席地质师: 李世臻 指导专家: 董清水 贺君玲 钻井负责人: 李二民 录井负责人: 黄高鹏

|             |                                                                                                                       |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|-------------|-----------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----------------|-----------|---------|--------|---|----|----------|--------|--------|----|------|------|----------|-----------|----|--|------|-----------|--|--|--|--|--------------|-----------|----|------|--|--|------|-----|-----|--|--|--|--|--|--|------|-----|-------|--|--|--|--|--|--|------|---|-----|--|--|--|--|--|--|------|-----|-----|--|--|--|--|--|--|------|---|-----|--|--|--|--|
| 工程概况        |                                                                                                                       |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 井点地理位置      | 长春市双阳区佟家乡大龙村                                                                                                          |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 构造位置        | 双阳盆地中央凹陷                                                                                                              |                |                                                                   | 设计井深 (m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                 | 3000            |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 钻探目的        | 建立双阳盆地中生界地层序列, 验证地球物理界面地质属性, 揭示中生界岩性组合特征, 查明主要泥岩层位与发育特征, 明确中生界的生、储、盖组合特征及含油气情况, 探索松辽盆地外围东部三叠—白垩系的勘探潜力, 落实双阳盆地的油气成藏条件。 |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 目的层段        | 长安组、太阳岭组、大酱缸组                                                                                                         |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 钻遇地层情况      | 地层                                                                                                                    | 第四系            | 放马岭组                                                              | 泉头组                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 金家屯组            | 长安组             | 安民组             | 太阳岭组      | 小蜂蜜顶子组  | 大酱缸组   |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             | 井深                                                                                                                    | 30.00          | 524.00                                                            | 830.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1165.00         | 1260.00         | 1443.00         | 1819.00   | 2577.00 | 2733   |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             | 层厚                                                                                                                    | 22.50          | 494.00                                                            | 306.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 335.00          | 95.00           | 183.00          | 376.00    | 758.00  | 156.00 |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 钻井施工情况      |                                                                                                                       |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 施工累计天数      | 86                                                                                                                    |                | 当前井深 (m)                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2733            |                 | 日进尺 (m)         |           | 50      |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 钻遇地层        | 小蜂蜜顶子组                                                                                                                | 钻具组合           | 215.9mmPDC钻头+172mm1° 双扶螺杆+158mm无磁+158mm钻铤*8根+127mm加重钻杆*9根+127mm钻杆 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 | 钻头规范      | 215.9mm |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 施工情况        | 7:00-9:00循环-7:00钻进。                                                                                                   |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 泥浆性能        |                                                                                                                       |                | 入口                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 出口              |                 | 泥饼 (mm)         |           | 0.5     |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             | 钻井液密度 (g/cm³)                                                                                                         |                | 1.25                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.26            |                 | 粘度 (s)          |           | 60      |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             | 电导率 (s/m)                                                                                                             |                | 2.38                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.42            |                 | 初切 (mg/cm²)     |           | 4       |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             | 温度 (°C)                                                                                                               |                | 44.2                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 51.3            |                 | 终切 (mg/cm²)     |           | 11      |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             | 失水 (ml)                                                                                                               |                | 4.0                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 含砂%             |                 | 0.3             |           | PH值     |        | 9 |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 录井资料        |                                                                                                                       |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 主要岩性        | 灰绿色安山岩、灰色细砂岩、灰色砂砾岩、灰绿色细砂岩                                                                                             |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 油气显示        | 无                                                                                                                     |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 全烃 (%)      | 0.008                                                                                                                 |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 组分 (%)      | C <sub>1</sub>                                                                                                        | C <sub>2</sub> | C <sub>3</sub>                                                    | iC <sub>4</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | nC <sub>4</sub> | iC <sub>5</sub> | nC <sub>5</sub> |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             | 0.0006                                                                                                                |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 取心情况        |                                                                                                                       |                |                                                                   | 常规钻时                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                 | 最大              | 最小        | 一般      |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             |                                                                                                                       |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 | 24.9            | 11.4      | 19.3    |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 现场照片        |                                                                                                                       |                |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             |                                                                                                                       |                |                                                                   | <div>双参1井岩屑录井草图</div> <table><tr><td>地层</td><td>钻时 min/m</td><td>GR 200</td><td>深度 (m)</td><td>颜色</td><td>岩性剖面</td><td>钻井取心</td><td>LLD 2000</td><td>0.001 全烃%</td><td>10</td></tr><tr><td></td><td>0 50</td><td>SP 15 150</td><td></td><td></td><td></td><td></td><td>0.2 LLS 2000</td><td>0.001 甲烷%</td><td>10</td></tr><tr><td rowspan="5">大酱缸组</td><td></td><td></td><td>2690</td><td>5.7</td><td>...</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>2700</td><td>1.5</td><td>V V V</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>2710</td><td>7</td><td>...</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>2720</td><td>...</td><td>...</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>2730</td><td>7</td><td>...</td><td></td><td></td><td></td><td></td></tr></table> |                 |                 |                 |           |         |        |   | 地层 | 钻时 min/m | GR 200 | 深度 (m) | 颜色 | 岩性剖面 | 钻井取心 | LLD 2000 | 0.001 全烃% | 10 |  | 0 50 | SP 15 150 |  |  |  |  | 0.2 LLS 2000 | 0.001 甲烷% | 10 | 大酱缸组 |  |  | 2690 | 5.7 | ... |  |  |  |  |  |  | 2700 | 1.5 | V V V |  |  |  |  |  |  | 2710 | 7 | ... |  |  |  |  |  |  | 2720 | ... | ... |  |  |  |  |  |  | 2730 | 7 | ... |  |  |  |  |
| 地层          | 钻时 min/m                                                                                                              | GR 200         | 深度 (m)                                                            | 颜色                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 岩性剖面            | 钻井取心            | LLD 2000        | 0.001 全烃% | 10      |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             | 0 50                                                                                                                  | SP 15 150      |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 | 0.2 LLS 2000    | 0.001 甲烷% | 10      |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 大酱缸组        |                                                                                                                       |                | 2690                                                              | 5.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ...             |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             |                                                                                                                       |                | 2700                                                              | 1.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | V V V           |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             |                                                                                                                       |                | 2710                                                              | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ...             |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             |                                                                                                                       |                | 2720                                                              | ...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ...             |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
|             |                                                                                                                       |                | 2730                                                              | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ...             |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |
| 2699m 灰色细砂岩 |                                                                                                                       | 2690m 灰绿色安山岩   |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |                 |           |         |        |   |    |          |        |        |    |      |      |          |           |    |  |      |           |  |  |  |  |              |           |    |      |  |  |      |     |     |  |  |  |  |  |  |      |     |       |  |  |  |  |  |  |      |   |     |  |  |  |  |  |  |      |     |     |  |  |  |  |  |  |      |   |     |  |  |  |  |

填表人: 张永新 黄高鹏 录井监督: 史文早 工程监督: 于金龙 审核人: 林燕华 日期: 2016年2月22日

