SYNERGY RESOURCES CORPORATION 20203 HIGHWAY 60 PLATTEVILLE, Colorado

**RBF 14-15D** 

**Ensign 33** 

# **Post Job Summary Cement Production Casing**

Prepared for: Don Libhart Date Prepared: 11/22/2010

Version: 1

Service Supervisor: Justin Wheeler

Submitted by: Wes Aaron

**HALLIBURTON** 

### Service Supervisor Reports

#### Job Log

| Date/Time        | Chart<br># | <b>Activity Code</b>                        | Pump<br>Rate | Cum<br>Vol | Pump | Pressure (psig) | Comments   |  |  |  |
|------------------|------------|---|--------------|------------|------|-----------------|--|--|--|--|
| 11/18/2010 04:30 |            | Depart from Service<br>Center or Other Site |              |            |      |                 |  |  |  |  |
| 11/18/2010 06:00 |            | Arrive At Loc                               |              |            |      |                 |  |  |  |  |
| 11/18/2010 07:20 |            | Safety Meeting - Pre<br>Rig-Up              |              |            |      |                 |  |  |  |  |
| 11/18/2010 08:11 |            | Test Lines                                  |              |            |      |                 |  |  |  |  |
| 11/18/2010 08:11 |            | Pump Spacer                                 | 3            | 20         |      | 250.0           | Pump Fresh Water   |  |  |  |
| 11/18/2010 08:17 |            | Pump Spacer                                 | 3.5          | 24         |      | 290.0           | Pump Mud Flush   |  |  |  |
| 11/18/2010 08:25 |            | Pump Lead Cement                            | 8            | 166.7      |      | 620.0           | Mix and Pump 480 sks EconoCem Cement<br>@ 12.5 lb/gal  |  |  |  |
| 11/18/2010 08:31 |            | Other                                       |              |            |      |                 | Power to FLECS System on Pump Truck<br>was accidentally turned off. When Power<br>was turned back on, Downhole Densometer<br>was reading density heavy. Verified<br>Density W/ Pressurized Mud Scales, and<br>Re-Set Downhole Densometer |  |  |  |
| 11/18/2010 08:49 |            | Pump Tail Cement                            | 8            | 68.1       |      | 280.0           | Mix and Pump 225 sks FracCem Cement @ 13.5 lb/gal  |  |  |  |
| 11/18/2010 09:00 |            | Clean Lines                                 |              | 10         |      |                 | Wash Pumps and Lines to Pit  |  |  |  |
| 11/18/2010 09:00 |            | Drop Top Plug                               |              |            |      |                 |  |  |  |  |
| 11/18/2010 09:03 |            | Pump Displacement -<br>Start                | 8            | 0          |      | 180.0           |  |  |  |  |
| 11/18/2010 09:24 |            | Pump Displacement -<br>End                  | 3            | 116        |      | 1640.0          | Good Returns Throughout Job  |  |  |  |
| 11/18/2010 09:24 |            | Bump Plug                                   | 3            | 116        |      | 2680.0          |  |  |  |  |
| 11/18/2010 09:26 |            | Check Floats                                |              |            |      |                 | Floats Holding   |  |  |  |
| 11/18/2010 10:00 |            | Safety Meeting - Pre<br>Rig-Down            |              |            |      |                 |  |  |  |  |
| 11/18/2010 10:30 |            | Safety Meeting -<br>Departing Location      |              |            |      |                 |  |  |  |  |

## Cementing Job Summary

The Road to Excellence Starts with Safety
Ship To #: 2820071 Quote #:

| Sold To #:  | 35991  | <br>5   |          |                  | <b>toad to</b> #: 282 |              |                | _                             | ote #:   |           | .11 Ja | ii e i | <u>y</u>  | Sale     | es (                         | Orde                | er #: 77  | 781473            |  |
|---|--|---------|----------|------------------|-----------------------|--------------|----------------|-------------------------------|--|-----------|--------|--------|-----------|----------|------------------------------|---------------------|-----------|-------------------|--|
| Customer: SYNERGY RESOURCES   |  |         |          |                  |                       |              |                |                               | Quote #: Sales Order #: 7781473 Customer Rep: Libhart, Don |           |        |        |           |          |                              |                     |           |                   |  |
| CORPORA   | ATION  |         | \        | , or (c          |                       |              |                |                               |  |           | ιτορ.  |        |           |          |                              |                     |           |                   |  |
| Well Name   | : RBF  |         |          |                  | W                     | /ell #       | <b>‡:</b> 14-′ | 15D                           | )  |           |        |        | API/      | UWI :    | #:                           |                     |           |                   |  |
| Field:  |  | C       | ity (S   | SAP)             |                       |              | Coun           | ty/F                          | Parish   | : V       | Veld   |        |           | Sta      | te:                          | Cold                | orado     |                   |  |
| WATTENB   | ERG  | V       | VIND     | SOR              |                       |              |                |                               |  |           |        |        |           |          |                              |                     |           |                   |  |
| Contracto   | <b>r:</b> Ensi                                 | gn      |          |                  | Rig/Pla               | atfor        | m Na           | me                            | /Num:  | 3         | 33     |        |           |          |                              |                     |           |                   |  |
| Job Purpo   | se: Ce   | ement   | Produ    | uctior           | Casing                | 3            |                |                               |  |           |        |        |           |          |                              |                     |           |                   |  |
| Well Type   | : Devel  | opmen   | t We     |                  | Job Ty                | pe:          | Ceme           | ent F                         | Produc   | ctio      | n Ca   | sin    | q         |          |                              |                     |           |                   |  |
| Sales Pers  | son: Fl  | LİNG.   |          |                  | Srvc S                |              |                |                               |  |           |        |        | BU IC     | ) Emi    | <b>)</b> #:                  | : 19                | 6470      |                   |  |
| MATTHEW   |  |         |          |                  | JUSTIN                | -            |                |                               |  |           | -,     |        |           |          |                              |                     |           |                   |  |
|   | <u>-                                      </u> |         |          |                  | 000                   |              | ob Pe          | rso                           | nnel   |           |        |        |           |          |                              |                     |           |                   |  |
| HES Emp   | Name   | Ехр Н   | rs Er    | np#              | HES                   |              | Name           |                               | Exp Hrs  | Е         | mp#    | I      | HES       | Emp N    | ame                          | е                   | Exp Hrs   | Emp#              |  |
| BARNES, BI  |  |         |          | 5204             | Olson, M              |              |                |                               |  | 476344    |        |        | odrigue   |          |                              |                     |           | tws               |  |
| Viso, Ramor   | 1  |         | 47′      | 1921             | WARD, S               | SAMU         | EL             |                               |  | 47        | 8713   |        | /HEELE    |          |                              | 1 W                 |           | 196470            |  |
| \\(\(\frac{1}{2}\)  | 150.4  |         | 4.44     | 2000             | Winfield              |              |                |                               |  |           |        |        |           |          |                              |                     |           |                   |  |
| WILEY, JAN  | IES A  |         | 44(      | 0800             |                       |              |                |                               |  |           |        |        |           |          |                              |                     |           |                   |  |
|   | la   |         | 1        |                  |                       |              | Equi           |                               |  | 1         |        |        |           |          |                              |                     |           |                   |  |
| 10857012C   | -  |         |          | # Distance-1 way |                       |              |                |                               |  |           | ,      |        |           |          |                              | Distance<br>45 mile | -1 way    |                   |  |
| 11542778  | 45 mile  |         | 570      |                  | 45 mile<br>45 mile    |              |                | 113                           | 11338223 45 m  |           |        | iie    | ie 113983 |          |                              | 9                   | 43 111116 |                   |  |
| 11542776  | 43 111116                                      |         | 570      | 70               | 43 111116             | <del>-</del> |                |                               |  |           |        |        |           |          |                              |                     |           |                   |  |
| D-1   | 0 /  |         | <u> </u> | ·                |                       | 10           | Job I          |                               |  |           |        | 1      | D - 1 -   |          |                              |                     |           |                   |  |
|   | On Locat<br>Hours                              |         |          | ting I<br>rs     |                       |              |                |                               | Opera<br>Hours   | Operating |        |        | Date      |          | On Locatio<br>Hours          |                     |           | perating<br>Hours |  |
|   | 110010   |         | - Tioui  |                  |                       |              | ouro           |                               | liours   | ,         |        |        |           | - 170    | Jaro                         |                     |           | 110410            |  |
| TOTAL   |  | "       |          |                  |                       |              |                | Total                         | is the s   | um        | of eac | h co   | lumn se   | eparate  | ly                           |                     | <b>"</b>  |                   |  |
|   |  |         | Jo       | b                |                       |              |                |                               |  |           |        |        | Jo        | ob Tir   | ne                           | S                   |           |                   |  |
| Formation Na  |  |         |          |                  |                       | 1            |                |                               |  |           |        |        |           | ate      |                              | Tim                 |           | me Zone           |  |
| Formation De  | pth (MD)                                       | Тор     |          | <b></b>          | Botto                 | om           |                |                               | Calle  |           |        |        | 18 - No   |          |                              | 00:0                |           | MST               |  |
| Form Type<br>Job depth MD   |  | 7499.   | f4       | BHS              |                       |              |                | On Location 9. ft Job Started |  |           |        |        | 18 - No   |          | r - 2010 06:<br>r - 2010 08: |                     |           | MST<br>MST        |  |
| Water Depth   | ,  | 7499.   | ıı.      |                  | It Above Floor        |              |                | Job Complet                   |  |           |        |        |           |          | - 2010 09:3                  |                     |           | MST               |  |
| Perforation D   | epth (MD                                       | ) From  |          | 10000            | То                    |              |                |                               | Depa   |           |        |        | 18 - No   |          |                              | 10:3                |           | MST               |  |
|   |  | - 1     | I .      |                  |                       |              | Well           | Da                            | ta   |           |        |        |           |          |                              |                     | •         |                   |  |
| Description   | Nev  | New / N |          | Size             | ID                    | Weig         |                |                               | Thread   | read      |        | Gra    | de 1      | ор МД    | ) E                          | 3ottor              |           | Bottom            |  |
|   | Us   | -       | ssure    | in               | in                    | lbm/         | /ft            |                               |  |           |        |        |           | ft       |                              | MD                  | TVD       | TVD               |  |
| Open Hole   |  | р       | sig      |                  | 7.875                 |              |                |                               |  |           |        |        |           | 446.     |                              | <b>ft</b><br>7525.  | ft        | ft                |  |
| Production  | Ne   | •W      |          | 4.5              | 4.                    |              |                |                               |  |           |        | 2      |           |          |                              |                     | •         | •                 |  |
| Casing  |  |         |          |                  |                       |              |                |                               |  |           |        |        |           |          |                              |                     |           |                   |  |
| Surface Casir   | ng Ne  | •W      |          | 8.625            |                       | 24.          |                | - rd                          | _  |           |        | J-5    | 5         | <u>.</u> |                              | 446.                |           |                   |  |
|   |  |         |          |                  |                       | s/Re         | ental/         | 3''                           | Party  | (HE       |        |        |           |          |                              |                     |           |                   |  |
|   | 1/0 000 0                                      | 2/4 00" |          | Descri           | ption                 |              |                |                               |  |           |        | Qty    | Qty uc    | om D     | eptl                         | n                   | Sup       | olier             |  |
| SHOE,FLT,4-1  |  |         |          |                  |                       |              |                |                               |  |           |        | 1      | EA<br>EA  |          |                              | $\perp$             |           |                   |  |
| CLR,FLT,4-1/2 8RD,9.5-13.5PPF,2-3/4<br>CENTRALIZER ASSY - API - 4-1/2 CSG X |  |         |          |                  |                       |              |                |                               |  |           |        | 30     | EA        |          |                              | -+                  |           |                   |  |
| CENTRALIZEI<br>CLAMP - LIMI   |  |         |          | <u> </u>         |                       |              |                |                               |  |           |        | 1      | EA        | _        |                              | +                   |           |                   |  |
| KIT,HALL WE   |  | 7 VOLI  |          |                  |                       |              |                |                               |  |           |        | 1      | EA        |          |                              | +                   |           |                   |  |
| ,   |  |         |          |                  |                       |              |                |                               |  |           |        | •      |           |          |                              |                     |           |                   |  |

## Cementing Job Summary

|         |                          |          |              |            |   | ription  |                    |      |          |           |          |         | Qty    | Qty uom                                       | Depth    |              | Su     | pplier     |
|---------|--------------------------|----------|--------------|------------|---|----------|--------------------|------|----------|-----------|----------|---------|--------|---|----------|--------------|--------|------------|
|         |                          |          |              |            | 4-1/2 IN  |          |                    |      |          |           |          |         | 1      | EA  |          |              |        |            |
| BAFFL   | E ASS                    | Y - 4-1  | /2 8RI       | D LATC     | I NWODH   | PLUG     |                    |      |          |           |          |         | 1      | EA  |          |              |        |            |
|         |                          |          |              |            |   |          | Tool               | s an | d Acc    | esso      | orie     | S       |        |   |          |              |        |            |
|         | Type Size Qty Make Depth |          |              |            |   | e S      | e Size Qty Make De |      |          |           | pth Type |         |        | Size  |          | Mak          |        |            |
| Guide   |                          |          |              |            |   | Packer   |                    |      |          |           |          |         |        | Plug  |          |              |        |            |
|         |                          |          |              | Bridge     |   |          |                    |      |          |           |          | om Plug |        |   |          |              |        |            |
| Float C |                          |          |              |            |   | Retainer |                    |      |          |           |          |         |        | plug set                                      |          |              |        |            |
| Insert  |                          |          |              |            |   |          |                    |      |          |           |          |         |        | Containe                                      | r        |              |        |            |
| Stage   | 1001                     |          |              |            |   |          | N4"                | - 11 |          | N. II - 1 | • - 1    |         | Cen    | tralizers                                     |          |              |        |            |
| •       |                          |          |              |            |   |          |                    |      | neous    |           |          | _       |        |   |          |              |        |            |
| Gelling |                          |          |              | Co         |   |          | urfactar           | it   |          |           | onc      |         |        | d Type  |          | Qty          |        | Conc 9     |
| Treatm  | nent F                   | <u>d</u> |              | Со         | nc  | ır       | hibitor            |      |          | _         | onc      |         | San    | d Type  |          | Size         |        | Qty        |
|         |                          |          |              |            |   |          |                    | FI   | uid Da   | ata       |          |         |        |   |          |              |        |            |
| Sta     | ige/P                    | lug #    | <i>‡</i> : 1 |            |   |          |                    |      |          |           |          |         |        |   |          |              |        |            |
| Fluid   | Sta                      | ge Typ   | ре           | Fluid Name |   |          |                    |      | Qty      |           | Qty Mi   |         | ing    |   | Mix Flu  | d Rat        | te     | Total Mi   |
| #       |                          |          |              |            |   |          |                    |      |          | ı         | uom      |         | sity   | ft3/sk  | Gal/sk   | bbl/r        | nin  F | Fluid Gal/ |
| _       |                          |          |              |            |   |          |                    |      |          |           |          |         | /gal   |   |          | _            |        |            |
| 1       |                          | r Spac   |              |            |   |          |                    |      | 20.0     |           | bbl      |         | 33     | .0  | .0       | 5.0          |        |            |
| 2       |                          | FLUSI    |              |            | O FLUSH III - SBM (528788)<br>DNOCEM (TM) SYSTEM (4529) |          |                    |      | 24.0     |           | bbl      |         | 8.4 .0 |   | .0       | 5.0          |        |            |
| 3       |                          | ent 12.  |              |            | •   | I) SYSTI | EM (4529           | 992) | 480.     | .0 s      | acks     | 12      | 2.5    | 1.95  | 10.62    | 5.0          | )      | 10.62      |
|         | 10.62                    |          |              |            | WATER   |          |                    |      |          |           |          |         |        |   |          |              |        |            |
| 4       |                          | ent 13.  |              |            | EM (TM)   | SYSTEN   | /I (45296          | 3)   | 225.     | .0 s      | acks     | 13      | 3.5    | 1.7   | 8.16     | 5.0          | 0      | 8.16       |
|         | 8.16                     |          |              | FRESH      | WATER   |          |                    |      |          |           |          |         |        |   |          |              |        |            |
| 5       | Clayf                    |          |              |            |   |          |                    |      |          |           | Gal      |         | •      | .0  | .0       | .0           | 1      |            |
|         |                          | cemer    |              | OL 43/FI   | · · · · · · · · · · · · · · · · · · ·                   |          | (404500            | 105) |          |           |          |         |        |   |          |              |        |            |
|         | 0 gal/                   | <u> </u> |              |            | X 3, TOT  |          | `                  | 125) |          |           |          |         |        |   |          |              |        |            |
|         |                          | ted V    | alue         | _          |   | ssures   | 3                  |      |          |           |          |         |        | olumes  |          |              |        |            |
| Displac |                          |          |              |            | t In: Inst  | ant      |                    |      | Returns  |           |          | Cem     |        |   |          | Pac          |        |            |
| Top O   |                          |          |              | 5 M        |   |          |                    |      | ent Retu | ırns      |          |         |        | isplaceme                                     |          |              | atme   |            |
| Frac G  | radier                   | it       |              | 15 N       | <u>/lin</u>   |          |                    | Spac | ers      |           |          | Load    | and    | Breakdov                                      | vn       | Tot          | al Jo  | b          |
| Rates   |                          |          |              | 1-         |   |          |                    |      |          |           |          |         |        |   |          |              |        |            |
| Circula |                          | <u> </u> | 1            |            | ixing   |          | 101                |      | Displa   | aceme     | ent      |         |        |   | Avg.     | Job          |        |            |
| Cemer   |                          |          |              | Amoun      |   | Reaso    |                    | Join |          | Dir: 1    | 4 2 E    | . 1     | 1,5    | <u>, , , , , , , , , , , , , , , , , , , </u> |          | <b>4</b> 1 @ | 1      | IID I      |
| Frac R  | ıng # 1                  | w        | 11           |            | Frac ring   | #2@      | IE                 |      |          | Ring ‡    |          | _       | IE     |   | rac Ring | #4@          |        | ID         |
| The I   | nform                    | ation    | State        | ed Here    | ein Is Co   | orrect   |                    | Cu   | stome    | r Rep     | ores     | entat   | ive    | Signatu                                       | re       |              |        |            |

