

SWARTZ 26N-25HZ WELL LOCATION CERTIFICATE

S ¼ COR. SEC. 13
2" ALUM. CAP (BASIS OF BEARINGS) SEE NOTE 2
PLS 25937, 1996

NW COR. SEC. 13
2" ALUM. CAP
PLS 25937, 1996

S89°36'41"E 2594.89'

S89°36'50"E 2594.45'

NE COR. SEC. 13
¾" ALUM. CAP
PLS 23520, 2002

SURFACE LOCATION:
GROUND ELEVATION=4956'
NAD83 STATE PLANE CO N
LATITUDE:40.131976°
LONGITUDE:-104.604473°
LATITUDE=40° 07' 55.113"
LONGITUDE=-104° 36' 16.104"

HEEL LOCATION:
NAD83 STATE PLANE CO N
LATITUDE:40.132879°
LONGITUDE:-104.603201°
LATITUDE=40° 07' 58.364"
LONGITUDE=-104° 36' 11.524"

NOTES:
BH AND HEEL LOCATIONS PROVIDED BY CLIENT.
LAND SURFACE USE-RANGELAND
EXISTING WELL SWARTZ 16-13 IS 361' NW AT 660' FSL & 660' FEL.
SEE ATTACHED MAP FOR ADDITIONAL IMPROVEMENTS WITHIN 500'

PDOP=1.5
GPS OPERATOR: BEN HARDENBERGH

W ¼ COR. SEC. 13
¾" ALUM. CAP
PLS 10855, 1998

BOTTOM HOLE LOCATION:
NAD83 STATE PLANE CO N
LATITUDE:40.109652°
LONGITUDE:-104.603225°
LATITUDE=40° 06' 34.747"
LONGITUDE=-104° 36' 11.610"

C ¼ COR. SEC. 13
¾" ALUM. CAP
PLS 24307, 2006

S89°49'20"E 2602.73'

E ¼ COR. SEC. 13
¾" ALUM. CAP
PLS 27269, 2004

SW COR. SEC. 13
½" ALUM. CAP
PLS 34980, 2007

S89°57'07"W 2609.78'

S ¼ COR. SEC. 13
½" ALUM. CAP
PLS 38345, 2013

S89°57'07"W 2609.78'

BHL- 2562' FNL } SEC. 25
143' FEL }

HEEL- 642' FSL
72' FEL
S00°32'03"E 8461.05'
(TRUE S00°02'43"W)
SE COR. SEC. 13
CALC'D FROM W.C. 30' E
¾" ALUM. CAP
PLS 27269, 1998

N00°08'29"W 2648.40'

N00°17'38"W 2640.01'

S00°23'01"E 2634.34'

S00°22'42"E 2634.36'

S00°34'00"E 2625.00'

S00°32'03"E 2624.15'

N46°39'37"E 484.52'
(TRUE N47°14'20"E)

EX. WELL:
SWARTZ 16-13

SWARTZ 26N-25HZ

310'

427'

LEGEND

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- ◆ = PROPOSED WELL
- ◆ = EXISTING WELL
- ◆ = BOTTOM HOLE
- ▲ = HEEL
- BHL = BOTTOM HOLE LOCATION

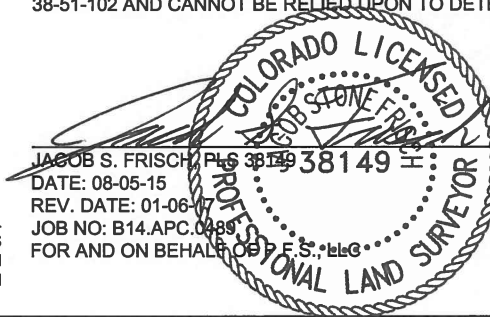
NOTES:

- THIS FIELD SURVEY CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
- BEARINGS ARE BASED ON THE ASSUMPTION THAT THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 13, BEARS S89°36'50"E BETWEEN THE MONUMENTS SHOWN HEREON.
- GRID DISTANCES ARE SHOWN, AS GPS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED PERPENDICULAR TO SECTION LINES. TO GET GROUND DISTANCES MULTIPLY THE SHOWN DISTANCE BY 1.000272228.
- ELEVATIONS SHOWN ARE NAVD 88, AS DERIVED BY GPS OBSERVATIONS.
- CERTIFIED AUGUST 5, 2015 FOR WELLS STAKED ON JANUARY 5, 2015. REVISED JANUARY 6, 2017 FOR HEEL AND BHL CHANGES.

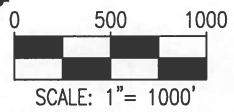
NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THIS SAID DATE OF THIS CERTIFICATION SHOWN HEREON.

**WELL SWARTZ 26N-25HZ TO BE
LOCATED 310' FSL & 427' FEL**

I, JACOB S. FRISCH, A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO DO HEREBY CERTIFY TO **KERR-MCGEE OIL & GAS ONSHORE LP**, THAT THE SURVEY AND WELL LOCATION CERTIFICATE SHOWN HEREON WERE DONE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THE DRAWING SHOWN HEREON ACCURATELY DEPICTS THE PROPOSED LOCATION OF THE WELL. THIS CERTIFICATE DOES NOT REPRESENT A LAND SURVEY PLAT OR IMPROVEMENT SURVEY PLAT AS DEFINED BY C.R.S. 38-51-102 AND CANNOT BE RELIED UPON TO DETERMINE OWNERSHIP.



JACOB S. FRISCH / PLS 38149
DATE: 08-05-15
REV. DATE: 01-06-17
JOB NO: B14.APC.0489
FOR AND ON BEHALF OF KERR-MCGEE OIL & GAS ONSHORE LP



PREPARED BY:



FIELD DATE:

01-05-15

DRAWING DATE:

01-05-17

BY:
MDC

CHECKED BY:
MLP

WELL NAME:

SWARTZ 26N-25HZ

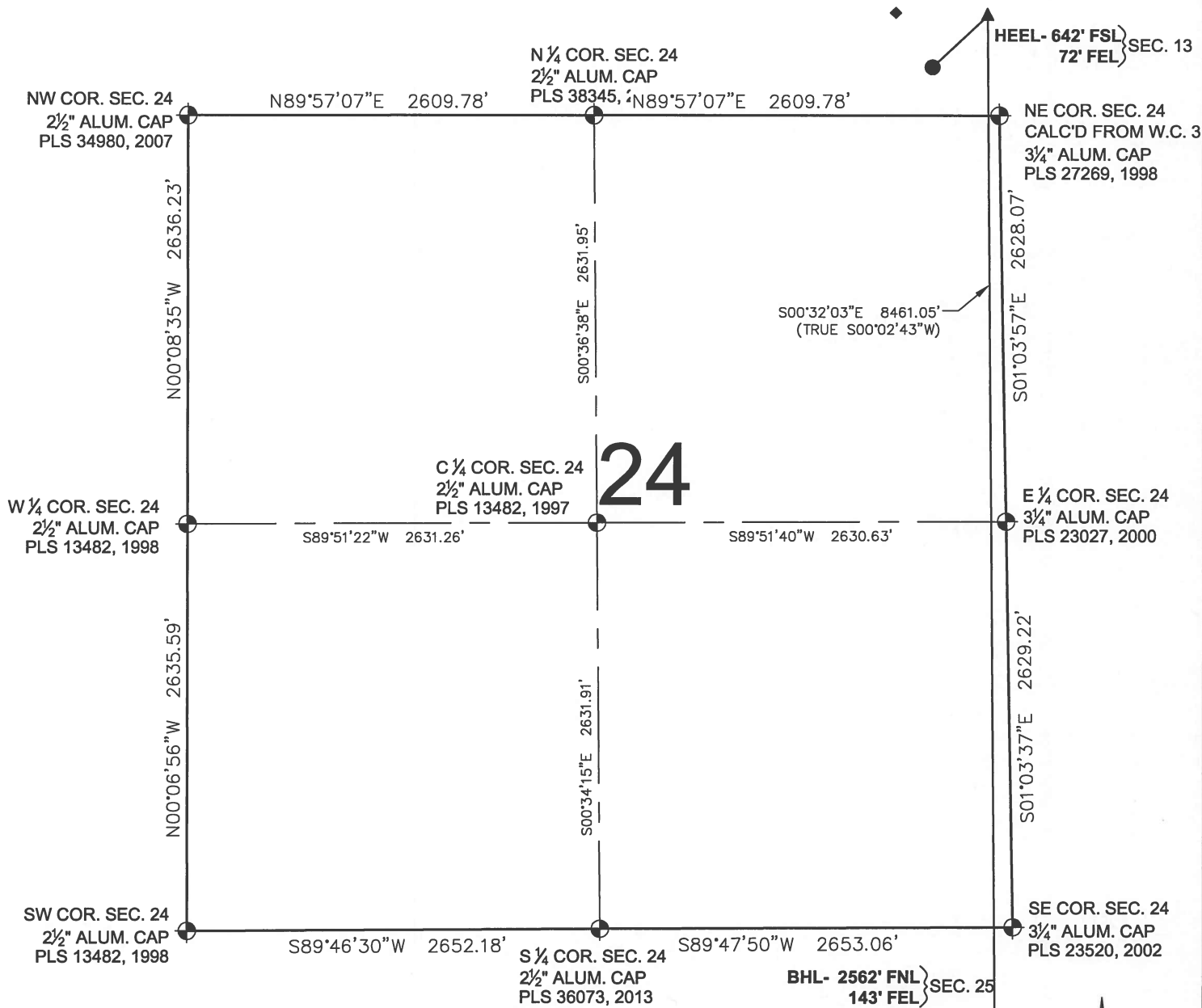
SURFACE LOCATION:

SE 1/4 SE 1/4 SEC. 13 T2N, R65W, 6TH P.M.
WELD COUNTY, COLORADO

PREPARED FOR:



SWARTZ 26N-25HZ WELL LOCATION CERTIFICATE

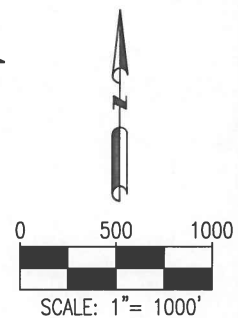
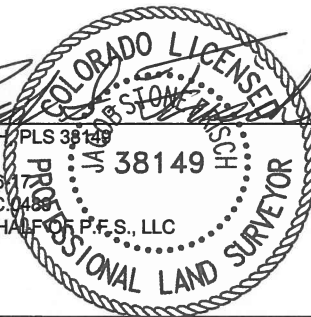


- NOTES:**
1. THIS FIELD SURVEY CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
 2. BEARINGS ARE BASED ON THE ASSUMPTION THAT THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 13, BEARS S89°36'50"E BETWEEN THE MONUMENTS SHOWN HEREON.
 3. GRID DISTANCES ARE SHOWN, AS GPS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED PERPENDICULAR TO SECTION LINES. TO GET GROUND DISTANCES MULTIPLY THE SHOWN DISTANCE BY 1.000272228.
 4. ELEVATIONS SHOWN ARE NAVD 88, AS DERIVED BY GPS OBSERVATIONS.
 5. CERTIFIED AUGUST 5, 2015 FOR WELLS STAKED ON JANUARY 5, 2015. REVISED JANUARY 6, 2017 FOR HEEL AND BHL CHANGES.

LEGEND

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- = CALCULATED POSITION ▲ = HEEL
- = PROPOSED WELL BHL = BOTTOM HOLE LOCATION
- ◆ = EXISTING WELL

JACOB S. FRISCH, PLS 38149
 DATE: 08-05-15
 REV. DATE: 01-06-17
 JOB NO: B14.APC.0458
 FOR AND ON BEHALF OF P.F.S., LLC

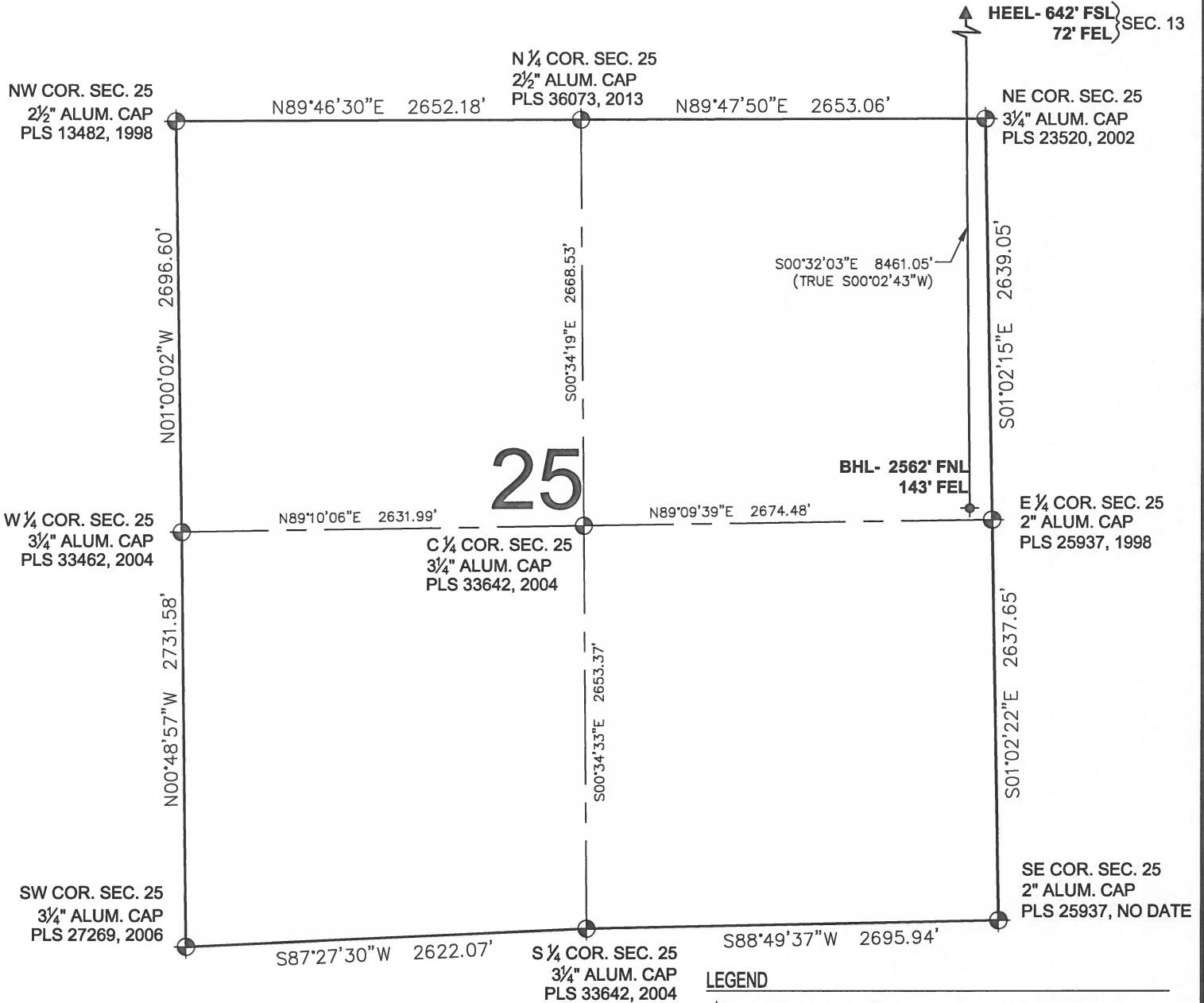


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SHEET 2 OF 3

PREPARED BY: Petroleum Field Services, LLC 7535 Hilltop Circle Denver, CO 80221	FIELD DATE: 01-05-15 DRAWING DATE: 01-05-17 BY: MDC CHECKED BY: MLP	WELL NAME: SWARTZ 26N-25HZ SURFACE LOCATION: SE 1/4 SE 1/4 SEC. 13 T2N, R65W, 6TH P.M. WELD COUNTY, COLORADO	PREPARED FOR: Petroleum Corporation
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SWARTZ 26N-25HZ WELL LOCATION CERTIFICATE

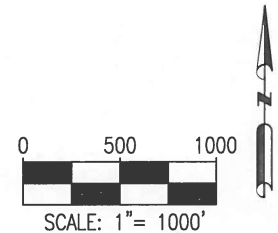


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JACOB S. FRISCH, PLS 38149
 DATE: 08-05-15
 REV. DATE: 01-06-17
 JOB NO: B14.APC.0459
 FOR AND ON BEHALF OF P.F.S., LLC



SHEET 3 OF 3

PREPARED BY: 	FIELD DATE: 01-05-15 DRAWING DATE: 01-05-17 BY: MDC CHECKED BY: MLP	WELL NAME: SWARTZ 26N-25HZ SURFACE LOCATION: SE 1/4 SE 1/4 SEC. 13 T2N, R65W, 6TH P.M. WELD COUNTY, COLORADO	PREPARED FOR:
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