FORM 3

AMENDED REPORT ☑

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR PERMIT TO DRILL

1. WELL NAME and NUMBER
RW H1-24-16B

2. TYPE OF WORK
DRILL NEW WELL ◉ REENTER P&A WELL ○ DEEPEN WELL ○

3. FIELD OR WILDCAT
RED WASH

4. TYPE OF WELL
Gas Well Coalbed Methane Well: NO

5. UNIT or COMMUNITIZATION AGREEMENT NAME
RED WASH

6. NAME OF OPERATOR
QEP ENERGY COMPANY

7. OPERATOR PHONE
303 595-5919

8. ADDRESS OF OPERATOR
11002 East 17500 South, Vernal, Ut, 84078

9. OPERATOR E-MAIL
julie.jacobson@qepres.com

10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)
UT SL ML3037

11. MINERAL OWNERSHIP
FEDERAL ○ INDIAN ○ STATE ◉ FEE ○

12. SURFACE OWNERSHIP
FEDERAL ○ INDIAN ○ STATE ○ FEE ◉

13. NAME OF SURFACE OWNER (if box 12 = 'fee')
QEP ENERGY COMPANY

14. SURFACE OWNER PHONE (if box 12 = 'fee')
435-781-4369

15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')
11002 EAST 17500 SOUTH, VERNAL, UT 84078

16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
valyn.davis@qepres.com

17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')

18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS
YES ○ (Submit Commingling Application) NO ◉

19. SLANT
VERTICAL ○ DIRECTIONAL ○ HORIZONTAL ◉

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	287 FSL 2300 FWL	SESW	16	7.0 S	23.0 E	S
Top of Uppermost Producing Zone	287 FSL 2300 FWL	SESW	16	7.0 S	23.0 E	S
At Total Depth	287 FSL 2300 FWL	SESW	16	7.0 S	23.0 E	S

21. COUNTY
UINTAH

22. DISTANCE TO NEAREST LEASE LINE (Feet)
287

23. NUMBER OF ACRES IN DRILLING UNIT
40

25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)
380

26. PROPOSED DEPTH
MD: 15699 TVD: 11326

27. ELEVATION - GROUND LEVEL
5650

28. BOND NUMBER
965010695

29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE
49-251/49-2153

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
SURF	12.25	9.625	0 - 3880	36.0	J-55 LT&C	8.5	Halliburton Light , Type Unknown	896	2.35	12.0
							Halliburton Premium , Type Unknown	286	1.16	15.8
I1	8.75	7	0 - 11612	26.0	HCP-110 LT&C	11.0	Halliburton Light , Type Unknown	604	2.27	12.0
							Halliburton Premium , Type Unknown	462	1.46	13.5

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES

- ☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ☑ COMPLETE DRILLING PLAN
- ☑ AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)
- ☐ FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
- ☐ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)
- ☑ TOPOGRAPHICAL MAP

NAME Valyn Davis	**TITLE** Regulatory Affairs Analyst	**PHONE** 435 781-4369
SIGNATURE	**DATE** 03/26/2014	**EMAIL** Valyn.Davis@qepres.com

API NUMBER ASSIGNED 43047543590000 **APPROVAL**

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LOCATION OF LATERAL NUMBER 1	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
Location At Kickoff Point Depth: 10715	287 FSL 2300 FWL	SESW	16	7.0 S	23.0 E	S
Top of Uppermost Producing Zone	287 FSL 2300 FWL	SESW	16	7.0 S	23.0 E	S
At Total Depth	460 FNL 1908 FEL	NWNE	16	7.0 S	23.0 E	S

COUNTY UINTAH	DISTANCE TO NEAREST LEASE LINE (Feet) 287
DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 380	PROPOSED DEPTH MD: 15699 TVD: 11326

Hole, Casing, and Cement Information

String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
PROD	6.125	4.5	0 - 15699	15.1	Q-125 Casing/Tubing	11.2	No Used	0	0.0	0.0
			0 -		Q-125 Casing/Tubing	11.2	No Used	0	0.0	0.0

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DRILLING PLAN
RW H1-24-16B WELL
UINTAH COUNTY, UTAH

1. FORMATION TOPS:

Formation	(TVD)	(MD)	
Green River	3,132'	3,132'	Possible O&G
Birds Nest	3,403'	3,403'	
Mahogany Bench	3,830'	3,830'	
Base of Mod Saline	5,577'	5,577'	
Wasatch	6,177'	6,177'	Possible O&G
Mesaverde	9,195'	9,195'	Possible O&G
KOP	10,717'	10,717'	
Total Depth	11,326'	15,699'	

TVD is at 0' vertical section.

2. ANTICIPATED DEPTHS OF OIL, GAS, WATER AND OTHER MINERAL BEARING ZONES:

No fresh water sands are known in Red Wash. Oil and Gas bearing zones are shown above. All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected.

All water shows and water-bearing sands will be reported to the State of Utah. Copies of State of Utah form OGC-8-X are acceptable. If flows are detected, samples will be submitted to the State along with any water analyses conducted.

3. PRESSURE CONTROL:

Notify the State office prior to pressure testing.

A. Below 9 5/8" surface casing – equipment & test plan (3,880' to 15,699' MD).
   1. 11" 5,000 psi double gate with blind rams and appropriate pipe rams.
   2. 11" 5,000 psi annular preventer and drilling spool or BOP with 2 side outlets.

   Note: Depending on rig selection the BOP stack may be 11" or 13 5/8". Additionally, the BOP stack may be 5M or 10M rated but will be tested per 5M requirements.

B. Test pressures and times are as follows:
   3. BOP: 5,000 psi (High) 250 psi (Low) – 10 min each
   4. Choke Manifold & Lines: 5,000 psi (High) 250 psi (Low) – 10 min each
   5. Annular Preventer: 2,500 psi (High) 250 psi (Low) – 10 min
   6. Surface Casing: 1,500 psi – 30 min, Intermediate Casing: .22 psi/ft MD – 30 min.
   7. Formation Integrity Test: Drill out 10' of new hole below casing. Perform FIT to 11.5 ppg EMW, below surface casing, 13.0 ppg EMW below intermediate casing.

C. Function test pipe rams & blind ram on trips and annular once per week.

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D. All casing strings below conductor shall be tested to 0.22 psi/ft or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield. BOP equipment will be tested when initially installed, whenever any seal subject to test pressure is broken, following related repairs and at 30 day intervals.

E. Ram type preventers and associated equipment shall be tested to the approved stack working pressure if isolated by a test plug or to 70% of the internal yield pressure of the casing if the BOP stack is not isolated from the casing. Annular preventers shall be tested to 50% of the rated working pressure.

F. BOP and related equipment shall meet the minimum requirements of Onshore Oil & Gas Order No.2 for equipment testing, procedures, etc…., for the appropriate 5M approved system. Individual components will be operable as designed.

G. Auxiliary Equipment:
   1. Manually operated upper & lower kelly cock valves.
   2. Floats may be run above any mud motor.
   3. Monitoring of the mud system will be visual and with PVT equipment.
   4. Manually operated, full opening floor valves that are capable of fitting all drill stem connections will be available in the full open position on the drill floor.

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4. CASING PROGRAM:

Hole Size	Csg Size	Top	Btm (MD)	(TVD)	Wt ppf	Grade	Thread	Type
17.5	14”	0’	80’	80’	72.0	Steel	Welded	
12-1/4”	9-5/8”	0’	3,880’	3,880’	36.0	J55	LTC	New
8-3/4”	7”	0’	11,612’	11,290’	26.0	HCP110	LTC	New
6-1/8”	4-1/2”	0’	15,699’	11,326’	15.1	HCQ125	CDC	New

Casing Strengths:				Collapse	Burst	Tensile (min.)
9 5/8”	36#	J-55 or K-55	LTC	2,020 psi	3,520 psi	453,000 lb.
7”	26#	HCP110	LTC	7,540 psi	9,960 psi	693,000 lb.
4-1/2”	15.1#	HCQ125	CDC	16,070 psi	15,300 psi	551,000 lb.

MINIMUM DESIGN FACTORS:
COLLAPSE: 1.125 based on .1 psi/ft fluid back-up inside, .53 psi/ft gradient
BURST: 1.000 based on .53 psi/ft gradient, no fluid on backside
TENSION: 1.800 based on casing string weight in 9.0 ppg mud

Area Fracture Gradient: 0.83 psi/foot

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The production casing program will consist of:

Float shoe
Float Collar
(20) frac stages consisting of (1) frac sleeve and (2) 5.85” swell packers, spaced evenly from TD to below the 7” casing shoe (20 sleeves, 19 packers) with 4.5” 15.1 ppf HCQ125 CDC casing between packers/sleeves.
4.5” 15.1 ppf HCQ125 CDC casing to ±100’ inside 7” casing shoe
(1) 5.85” swell packer (for isolation inside 7” Intermediate casing)
4.5” 15.1 ppf HCQ125 CDC casing to start of build
Liner Hanger with PBR
Remainder 4.5” 15.1 ppf HCQ125 CDC casing ran as tie back string to surface

5. CEMENTING PROGRAM:

Conductor: As needed. Cement to surface with construction cement.

9 5/8" Surface Casing: Cemented from surface to 3,880’ (MD)

Lead: 0’ – 3,380’. 896 sx (2,106 cuft) VariCem + LCM additives as needed. Excess: 100%.

Tail: 3,380'- 3,880’. 286 sx (331 cuft) HalCem + LCM additives as needed. Excess: 100%.

	Lead	Tail
Slurry Weight:	12.0 ppg	15.8 ppg
Slurry Yield:	2.35 ft^3/sx	1.16 ft^3/sx
Water Requirements:	13.7 gal/sx	5.02 gal/sx
Fluid Loss:	640 cc/30 min/ 92°F	500 cc/30 min/ 92°F
Free Water:	1% at 92° F	0% at 92° F
Thickening Time:	5.0hrs at 100° F	2.0 hrs at 100° F
Comp. Strength 12 hrs:	65 psi @ 125° F	1795 psi @ 125° F
72 hrs:	551 psi	2,800 psi

4 centralizers total are used. One set inside the shoe of the conductor casing and 1 each on the bottom three joints of the surface casing. Additional centralizers may be used as needed.

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7" Production Casing: Cemented from 0' to 11,612' (MD)

Lead: 0' – 8,695'. 604 sx (1,371 cuft) ExtendaCem 65/35 w/, 0.7% HR5 (retarder), 1.0 pps Granulite (LCM), 0.25 pps Poly-e-Flake (LCM), 5.0 pps Kol-Seal (LCM). Excess: 50%.

Tail: 8,695'- 11,612'. 462 sx (675 cuft) ExpandaCem w/ .7% HR601 (retarder), .125 pps Poly-e-Flake & .25 pps Kwik Seal (LCM). Excess: 50%.

	Lead	Tail
Slurry Weight:	12.0 ppg	13.5 ppg
Slurry Yield:	2.27 ft^3/sx	1.46 ft^3/sx
Water Requirements:	12.34 gal/sx	6.92 gal/sx
Fluid Loss:	640 cc/30 min/ 165°F	340 cc/30 min/ 165°F
Free Water:	1% at 165° F	0% at 165° F
Thickening Time:	6.5 hrs at 165° F	3.5 hrs at 165° F
Comp. Strength 12 hrs:	150 psi @ 210° F	1,000 psi @ 210° F
72 hrs:	800 psi	2,500 psi

4 centralizers total are used. One set inside the shoe of the surface casing and 1 each on the bottom three joints of the production casing. Additional centralizers may be used as needed.

4-1/2" Production Casing: Un-Cemented from 0' to 15,699' (MD)

Uncemented production casing. No centralizers.

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6. MUD PROGRAM/CIRCULATING MEDIUM:

Fresh water will be used from surface to 3,880'. Sufficient mud materials to maintain mud properties, control lost circulation and to contain well bore pressures will be available at the wellsite. All formations within the surface section in the Red Wash Unit are under-pressured. In the case of lost circulation, which is expected to be moderate to severe, products will be used as listed below:

SURFACE - Water/Spud Mud	
Product	**Usage / Description**
Cedar Fiber	Lost Circulation Material / Ground and Sized Cedar
Anco Fiber	Lost Circulation Material / Mixed sized cellulose fiber
Lime	pH control
HY Gel	Viscosifier / Bentonite
Anco Drill	Vicosifier, shale inhibition and stabilization / Anionic Polyacrylamide Polymer
Sapp	Bit Balling / Sodium Acid Pyrophosphate
Sawdust	Lost Circulation Material / Pine Sawdust
Walnut	Lost Circulation Material / Walnut Shell

Water based mud will be used to drill the intermediate hole section of the well. The 9 5/8" surface casing will be drilled out 10' and a Formation Integrity Test will be performed to an equivalent of 11.5 ppg. Anticipated mud weight at 7" intermediate casing point will be < 11.2 ppg. (.58 psi/ft)

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INTERMEDIATE – Water Based Mud	
Product	**Usage / Description**
Barite	Mud weight material / Barium Sulfate
Cedar Fiber	Lost Circulation Material / Ground and Sized Cedar
Anco Fiber	Lost Circulation Material / Mixed sized cellulose fiber
Lime	pH control
HY Gel	Viscosifier / Bentonite
Anco Drill	Vicosifier, shale inhibition and stabilization / Anionic Polyacrylamide Polymer
Sapp	Bit Balling / Sodium Acid Pyrophosphate
Sawdust	Lost Circulation Material / Pine Sawdust
Walnut	Lost Circulation Material / Walnut Shell
Sawdust	Lost Circulation Material / Pine Sawdust
Multi-Seal	Lost Circulation Material / Mixed sized cellulose fiber
Cal Carb	Lost Circulation Material & Filtration control/ Calcium Carbonate
Soltex	Shale inhibition and hole stabilization / Sulfonated Asphalt
Gilsonite	Shale inhibition and hole stabilization / Naturally occurring bitumen
Flowzan	Viscosifier / Xanthan gum
Drillpac HV	Fluid loss control / Poly-anionic cellulose
Caustic Soda	pH control
X-Cide 102	Bacterial degradation control / Bacteriacide

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OBM will be used to drill the production hole section of the well. The 7” surface casing will be drilled out 10’ and a Formation Integrity Test will be attempted to an equivalent of 13.0 ppg. Anticipated mud weight at TD point will be < 11.4 ppg. (.59 psi/ft)

PRODUCTION HOLE - Oil Based Mud	
Product	**Usage / Description**
Bentone 920	Oil Mud Viscosifier / Organophilic clay
Calcium Chloride	Internal phase fluid / Calcium Chloride
Barite	Weight Material / Barium Sulfate
Soltex	Shale inhibition and hole stabilization / Sulfonated Asphalt
Lime	Alkalinity Control / Calcium Hydroxide
Anco Mul P	Emulsifier / Liquid blend of organic fatty acids
Anco Mul S	Emulsifier / Liquid blend of polyamides
Anco Mul OW	Wetting agent / Liquid blend of emulsifying and wetting agents
Diesel	Base Fluid / Diesel
Cedar Fiber	Lost Circulation Material / Ground and Sized Cedar
Multi-Seal	Lost Circulation Material / Mixed sized cellulose fiber
Cal Carb	Lost Circulation Material & Filtration control/ Calcium Carbonate
Sawdust	Lost Circulation Material / Pine Sawdust
Walnut	Lost Circulation Material / Walnut Shell

+ MD	Mud Wt (ppg)	Fun Vis (cp)	PV (cp)	YP (lb/100ftft	FL (ml/30’)	pH	Type
0' - 3,880’	±8.5	±28	N/C	N/C	N/C	±7.5	Freshwater
3,880' – 11,612’	9.0 – 11.0	30 – 50	10 - 20	2 – 10	6 - 12	±9.0	WBM
11,612' – 15,699’	9.5 – 11.2	±50	15 - 22	4 - 8	±18	NA	OBM

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7. LOGGING, TESTING, & CORING:

Triple Combo – Surface to KOP
No DST's or cores are planned for this well.

8. ABNORMAL PRESSURE AND TEMPERATURE:

No abnormal temperatures or pressures are anticipated. No H2S has been encountered or is known to exist from previous wells drilled to similar depths in the general area.

BHT = 210° F at TD. Expected reservoir pressure at TD is < 6,713 psi.

Maximum anticipated Surface SIP is less than 5,000 psi [(6,713 psi – (.22 psi/ft * 11,326 ft) = 4,222 psi].

9. ADDITIONAL INFORMATION / ASPECTS:

- A reserve pit will be constructed for this location. This pit will be constructed so that a minimum of two vertical feet of freeboard exists above the top of the pit at all times and all of the holding capacity will be below ground level. The pit will be lined with a synthetic reinforced liner, 0.030" (0.75 mm +/-) thick, with sufficient bedding used to cover any rocks prior to putting any fluids into the pit. The pad will be designed so that runoff from adjacent slopes does not flow into the reserve pit. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place.

- All rig ditches will be lined and directed to a lined sump for fluid recovery. A drip pan will be installed on the BOP stack, a mud bucket will be utilized as needed on connections and a vacuum system will be used on the rig floor for fluid recovery in those areas.

- Oil-base mud will be mixed in the closed circulating system and transferred to one or more 400 bbl or 500 bbl tanks (as available) on location for storage prior to and after drilling operations. Drip pans will be installed below the rotary beams on the substructure and can be viewed on site from the cellar area. Drill cuttings from the production section of the hole will be mechanically separated from the drilling fluid as waste by two shale-shakers and then cleaned/dried via a mud cleaner and/or centrifuge. These separated cuttings will be transferred to the cuttings pit nearest the shakers and stored in this cuttings pit for solidification after the rig is released and moved off location.
  Once all waste has been placed in the cuttings pit and all necessary approvals obtained, the oilfield waste management consultant Soli-Bond or a similar company will mobilize equipment and personnel to the site to perform the cement based solidification/stabilization process in-situ for encapsulation. Soil will be backfilled over the processed material used on the cuttings pit and will be returned to the existing grade bordering the pit.

- The well profile is a horizontal plan. The directional plan and detail is attached.

- **All producing Green River wells in the Red Wash Unit are on artificial lift. Bottom hole pressures in the producing wells are less than .43 psi/ft. No water flows have been experienced in any of the wells drilled through the Green River formation. All injectors within ½ mile radius will be shut in a minimum of 30 days prior to drilling this well. The 11.5 ppg (.60 psi/ft) lead cement planned for across the Green River producing interval is adequate for isolation of hydrocarbons while having a**

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density that will give a hydrostatic column considerably greater than the pore pressure at the Green River formation.

- Injectors within .5 miles
  - RW 21-21B 845’ S Injecting
  - RW 12-21B 2,400’ SW Shut in
  - Fed 22-21B 1,750’ S Shut in

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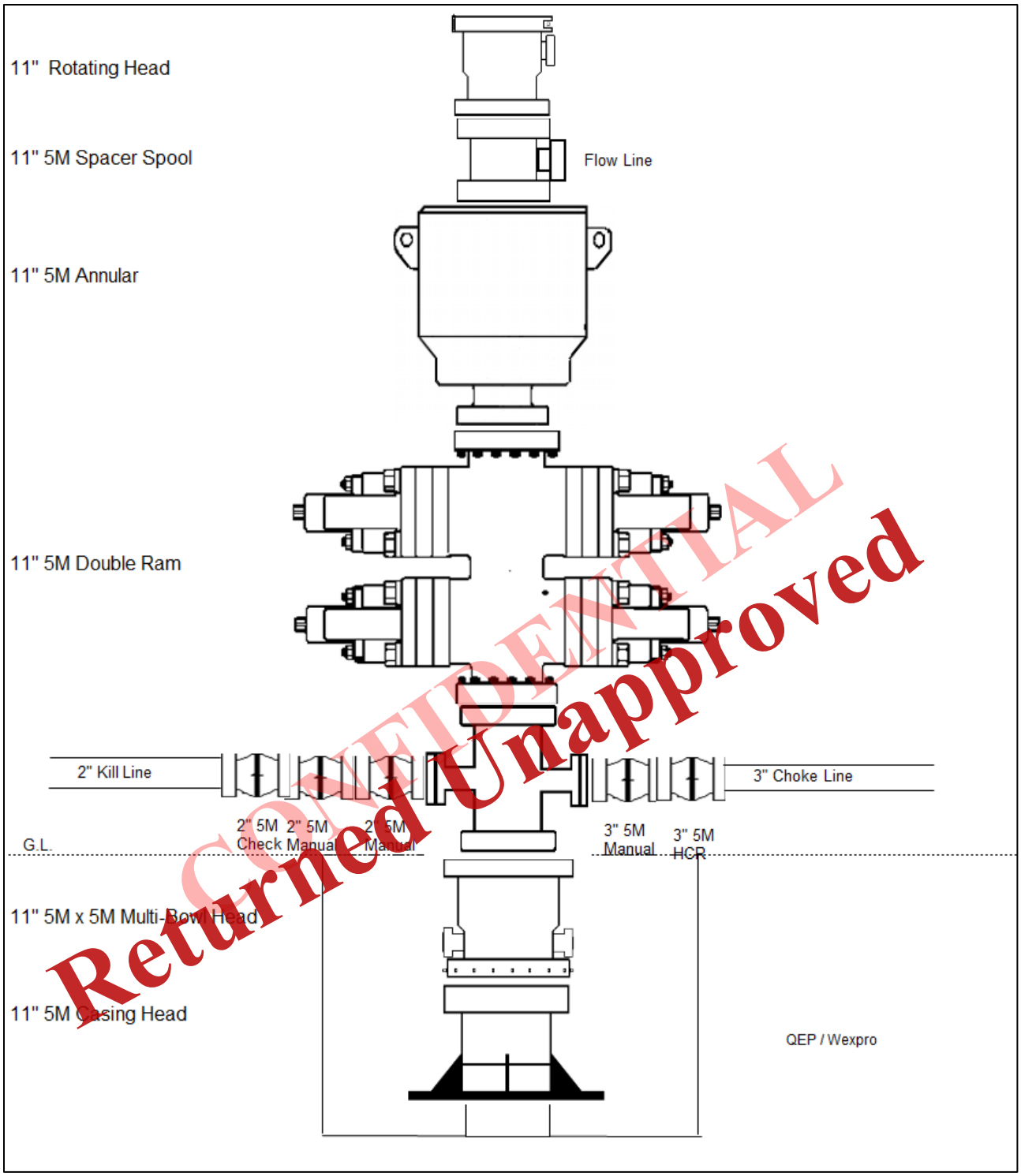

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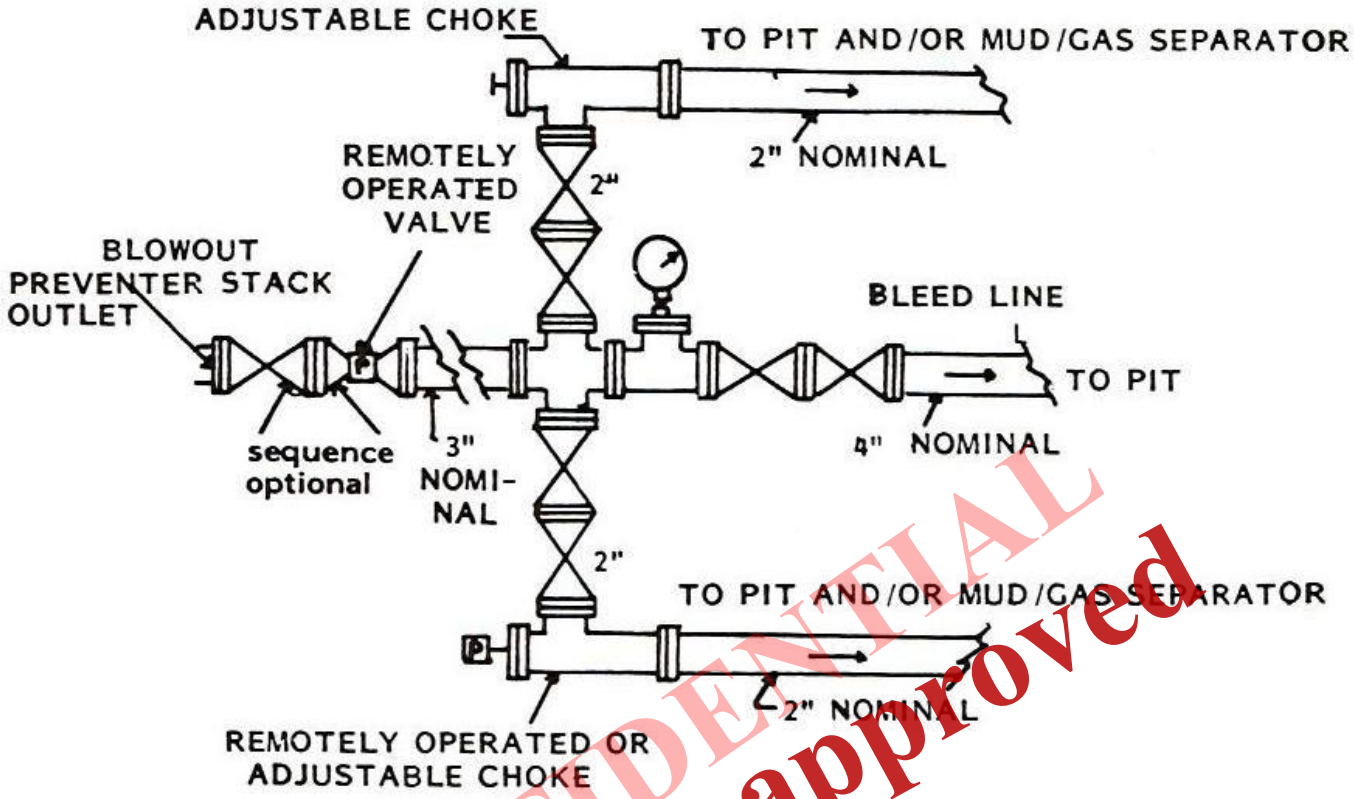

Figure 2

TYPICAL CHOKE MANIFOLD ASSEMBLY FOR 5M RATED WORKING PRESSURE SERVICE-SURFACE INSTALLATION

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RW H1-24-16B
Uintah County, Utah

CONDUCTOR

Hole Size:	24"	**Auger**
Conductor:	80', 16"	
Cement:	**1.0** yd^3 of Redi-Mix	
TOC:	Surface	

SURFACE

Hole Size:	12-1/4" **Mud Type:** Water Base LSND ±8.6 ppg
Casing:	3,880', 9-5/8", 36 ppf, J55, LTC
Lead Cmt:	896 sxs Varicem w/.125 pps Poly-E-Flake, .25 pps Kwik Seal, 12.0 ppg, 2.23 cfs , 100% excess
Tail Cmt:	286 sxs Halcem w/.125 pps Poly-E-Flake, .25 pps Kwik Seal, 13.5 ppg, 1.64 cfs, 100% excess
TOC:	Surface
BOPE:	11" 5,000 psi
FIT after drill out	11.5 ppg EMW @ ±3,890' MD

INTERMEDIATE

Hole Size:	8-3/4" **Mud Type:** Water Base LSND 8.6 ppg - 11.2 ppg
Casing:	11,612', 7", 26 ppf, HCP110, LTC
Lead Cmt:	604 sxs ExtendaCem w/.25 pps PolyEFlake, .7% HR5, 1.0 pps Granulite, 5.0 pps Kol-Seal, 12.0 ppg, 2.27 cfs yld, 50% excess
Tail Cmt:	462 sxs ExpandCem w/.7% HR601, .125 pps PolyEFlake, .25 pps Kwik Seal, 13.5 ppg, 1.46 cfs yld, 50% excess
KOP:	10,717' MD/TVD 10°/100' Build Rate,13.2° Azimuth
TOC:	0'
Csg Point:	11,612' MD, 11,290' TVD
FIT after drill out	13.0 ppg EMW @ ±11,622' MD

PRODUCTION

Hole Size:	6-1/8" **Mud Type:** OBM 9.0 ppg - 12.2 ppg		
Liner:	10,717' to 15,699', 4.5", 15.1 ppf, HCQ125, CDC, Versa Flex Liner Hanger w/ PBR	**Tie Back:**	0' to 10,717', 4.5", 15.1 ppf HCQ125 CDC
Packers/Sleeves	19 open hole swell packers spaced evenly throughout the lateral. 20 Rapid Stage sleeves 2 cased hole swell packers ±100' inside intermediate casing		
Hold Angle:	89.5° Inc, 13.2° Az		

Formation Dip: 89.5° @ 13.2° AZ

15,699' MD, 11,326' TVD TD

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QEP ENERGY (UT)

Red Wash - B
RW H1-24-16B
RW H1-24-16B

Original Hole

Plan: Plan ver.1

Standard Planning Report

03 February, 2015

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QEP Resources

Planning Report

Database:	EDMDB_QEP	**Local Co-ordinate Reference:**	Well RW H1-24-16B
Company:	QEP ENERGY (UT)	**TVD Reference:**	RKB @ 5677.00usft (EST RKB)
Project:	Red Wash - B	**MD Reference:**	RKB @ 5677.00usft (EST RKB)
Site:	RW H1-24-16B	**North Reference:**	True
Well:	RW H1-24-16B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan ver.1		

Project Red Wash - B

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Utah Central Zone		Using geodetic scale factor

Site RW H1-24-16B

Site Position:		**Northing:**	7,250,020.300 usft	**Latitude:**	40.203062
From:	Map	**Easting:**	2,245,522.380 usft	**Longitude:**	-109.333349
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	1.39 °

Well RW H1-24-16B

Well Position	**+N/-S**	0.00 usft	**Northing:**	7,250,020.300 usft	**Latitude:**	40.203062
	+E/-W	0.00 usft	**Easting:**	2,245,522.380 usft	**Longitude:**	-109.333349
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	5,647.00 usft	**Ground Level:**	5,647.00 usft

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/12/2014	10.68	65.99	52,183

Design Plan ver.1

Audit Notes:

Version:	**Phase:** PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	11,325.60	0.00	0.00	13.19

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10,717.02	0.00	0.00	10,717.02	0.00	0.00	0.00	0.00	0.00	0.00	
11,612.02	89.50	13.19	11,289.95	552.97	129.62	10.00	10.00	0.00	13.19	
15,699.21	89.50	13.19	11,325.62	4,532.14	1,062.37	0.00	0.00	0.00	0.00	RW H1-24-16B

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Received: April 01, 2015

Database:	EDMDB_QEP	**Local Co-ordinate Reference:**	Well RW H1-24-16B
Company:	QEP ENERGY (UT)	**TVD Reference:**	RKB @ 5677.00usft (EST RKB)
Project:	Red Wash - B	**MD Reference:**	RKB @ 5677.00usft (EST RKB)
Site:	RW H1-24-16B	**North Reference:**	True
Well:	RW H1-24-16B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan ver.1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,132.00	0.00	0.00	3,132.00	0.00	0.00	0.00	0.00	0.00	0.00
Green River fm									
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,403.00	0.00	0.00	3,403.00	0.00	0.00	0.00	0.00	0.00	0.00
Top of Birds Nest									
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,612.00	0.00	0.00	3,612.00	0.00	0.00	0.00	0.00	0.00	0.00
Base of Birds Nest									
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,830.00	0.00	0.00	3,830.00	0.00	0.00	0.00	0.00	0.00	0.00
Mahogony Bench									
3,880.00	0.00	0.00	3,880.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00

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Company:	QEP ENERGY (UT)	**TVD Reference:**	RKB @ 5677.00usft (EST RKB)
Project:	Red Wash - B	**MD Reference:**	RKB @ 5677.00usft (EST RKB)
Site:	RW H1-24-16B	**North Reference:**	True
Well:	RW H1-24-16B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan ver.1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,577.00	0.00	0.00	5,577.00	0.00	0.00	0.00	0.00	0.00	0.00
Base of Mod Saline									
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,177.00	0.00	0.00	6,177.00	0.00	0.00	0.00	0.00	0.00	0.00
Wasatch									
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,195.00	0.00	0.00	9,195.00	0.00	0.00	0.00	0.00	0.00	0.00

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Well:	RW H1-24-16B	**Survey Calculation Method:**	Minimum Curvature
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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Mesaverde									
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	0.00	0.00
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.00	0.00	0.00
10,600.00	0.00	0.00	10,600.00	0.00	0.00	0.00	0.00	0.00	0.00
10,700.00	0.00	0.00	10,700.00	0.00	0.00	0.00	0.00	0.00	0.00
10,717.02	0.00	0.00	10,717.02	0.00	0.00	0.00	0.00	0.00	0.00
10,800.00	8.30	13.19	10,799.71	5.84	1.37	6.00	10.00	10.00	0.00
10,900.00	18.30	13.19	10,896.91	28.21	6.61	28.97	10.00	10.00	0.00
11,000.00	28.30	13.19	10,988.63	66.67	15.63	68.47	10.00	10.00	0.00
11,100.00	38.30	13.19	11,072.11	120.05	28.14	123.30	10.00	10.00	0.00
11,200.00	48.30	13.19	11,144.80	186.73	43.77	191.80	10.00	10.00	0.00
11,300.00	58.30	13.19	11,204.49	264.70	62.05	271.87	10.00	10.00	0.00
11,400.00	68.30	13.19	11,249.36	351.56	82.41	361.09	10.00	10.00	0.00
11,500.00	78.30	13.19	11,278.07	444.70	104.24	456.75	10.00	10.00	0.00
11,600.00	88.30	13.19	11,289.72	541.27	126.88	555.94	10.00	10.00	0.00
11,612.02	89.50	13.19	11,289.95	552.97	129.62	567.96	10.00	10.00	0.00
7"									
11,700.00	89.50	13.19	11,290.72	638.63	149.70	655.94	0.00	0.00	0.00
11,800.00	89.50	13.19	11,291.59	735.98	172.52	755.93	0.00	0.00	0.00
11,900.00	89.50	13.19	11,292.47	833.34	195.34	855.93	0.00	0.00	0.00
12,000.00	89.50	13.19	11,293.34	930.70	218.16	955.93	0.00	0.00	0.00
12,100.00	89.50	13.19	11,294.21	1,028.06	240.98	1,055.92	0.00	0.00	0.00
12,200.00	89.50	13.19	11,295.08	1,125.41	263.81	1,155.92	0.00	0.00	0.00
12,300.00	89.50	13.19	11,295.96	1,222.77	286.63	1,255.91	0.00	0.00	0.00
12,400.00	89.50	13.19	11,296.83	1,320.13	309.45	1,355.91	0.00	0.00	0.00
12,500.00	89.50	13.19	11,297.70	1,417.48	332.27	1,455.91	0.00	0.00	0.00
12,600.00	89.50	13.19	11,298.57	1,514.84	355.09	1,555.90	0.00	0.00	0.00
12,700.00	89.50	13.19	11,299.45	1,612.20	377.91	1,655.90	0.00	0.00	0.00
12,800.00	89.50	13.19	11,300.32	1,709.56	400.73	1,755.90	0.00	0.00	0.00
12,900.00	89.50	13.19	11,301.19	1,806.91	423.56	1,855.89	0.00	0.00	0.00
13,000.00	89.50	13.19	11,302.07	1,904.27	446.38	1,955.89	0.00	0.00	0.00
13,100.00	89.50	13.19	11,302.94	2,001.63	469.20	2,055.88	0.00	0.00	0.00
13,200.00	89.50	13.19	11,303.81	2,098.98	492.02	2,155.88	0.00	0.00	0.00
13,300.00	89.50	13.19	11,304.68	2,196.34	514.84	2,255.88	0.00	0.00	0.00
13,400.00	89.50	13.19	11,305.56	2,293.70	537.66	2,355.87	0.00	0.00	0.00
13,500.00	89.50	13.19	11,306.43	2,391.06	560.48	2,455.87	0.00	0.00	0.00
13,600.00	89.50	13.19	11,307.30	2,488.41	583.30	2,555.87	0.00	0.00	0.00
13,700.00	89.50	13.19	11,308.17	2,585.77	606.13	2,655.86	0.00	0.00	0.00
13,800.00	89.50	13.19	11,309.05	2,683.13	628.95	2,755.86	0.00	0.00	0.00
13,900.00	89.50	13.19	11,309.92	2,780.49	651.77	2,855.85	0.00	0.00	0.00
14,000.00	89.50	13.19	11,310.79	2,877.84	674.59	2,955.85	0.00	0.00	0.00

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14,100.00	89.50	13.19	11,311.66	2,975.20	697.41	3,055.85	0.00	0.00	0.00
14,200.00	89.50	13.19	11,312.54	3,072.56	720.23	3,155.84	0.00	0.00	0.00
14,300.00	89.50	13.19	11,313.41	3,169.91	743.05	3,255.84	0.00	0.00	0.00
14,400.00	89.50	13.19	11,314.28	3,267.27	765.88	3,355.83	0.00	0.00	0.00
14,500.00	89.50	13.19	11,315.16	3,364.63	788.70	3,455.83	0.00	0.00	0.00
14,600.00	89.50	13.19	11,316.03	3,461.99	811.52	3,555.83	0.00	0.00	0.00
14,700.00	89.50	13.19	11,316.90	3,559.34	834.34	3,655.82	0.00	0.00	0.00
14,800.00	89.50	13.19	11,317.77	3,656.70	857.16	3,755.82	0.00	0.00	0.00
14,900.00	89.50	13.19	11,318.65	3,754.06	879.98	3,855.82	0.00	0.00	0.00
15,000.00	89.50	13.19	11,319.52	3,851.41	902.80	3,955.81	0.00	0.00	0.00
15,100.00	89.50	13.19	11,320.39	3,948.77	925.63	4,055.81	0.00	0.00	0.00
15,200.00	89.50	13.19	11,321.26	4,046.13	948.45	4,155.80	0.00	0.00	0.00
15,300.00	89.50	13.19	11,322.14	4,143.49	971.27	4,255.80	0.00	0.00	0.00
15,400.00	89.50	13.19	11,323.01	4,240.84	994.09	4,355.80	0.00	0.00	0.00
15,500.00	89.50	13.19	11,323.88	4,338.20	1,016.91	4,455.79	0.00	0.00	0.00
15,600.00	89.50	13.19	11,324.75	4,435.56	1,039.73	4,555.79	0.00	0.00	0.00
15,699.21	89.50	13.19	11,325.62	4,532.14	1,062.37	4,654.99	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
RW H1-24-16B - plan hits target center - Point	0.00	0.00	11,325.62	4,532.14	1,062.37	7,254,576.480	2,246,474.590	40.215503	-109.329545

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
3,880.00	3,880.00	9 5/8"	9-5/8	12-1/4
11,612.02	11,289.95	7"	7	8-3/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,132.00	3,132.00	Green River fm			
3,403.00	3,403.00	Top of Birds Nest			
3,612.00	3,612.00	Base of Birds Nest			
3,830.00	3,830.00	Mahogony Bench			
5,577.00	5,577.00	Base of Mod Saline			
6,177.00	6,177.00	Wasatch			
9,195.00	9,195.00	Mesaverde		0.50	15.00

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Received: April 01, 2015

Database:	EDMDB_QEP	**Local Co-ordinate Reference:**	Well RW H1-24-16B
Company:	QEP ENERGY (UT)	**TVD Reference:**	RKB @ 5677.00usft (EST RKB)
Project:	Red Wash - B	**MD Reference:**	RKB @ 5677.00usft (EST RKB)
Site:	RW H1-24-16B	**North Reference:**	True
Well:	RW H1-24-16B	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan ver.1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
10,717.02	10,717.02	0.00	0.00	Start Build 10.00
11,612.02	11,289.95	552.97	129.62	Start 4087.19 hold at 11612.02 MD
15,699.21	11,325.62	4,532.14	1,062.37	TD at 15699.21

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Received: April 01, 2015

Company Name: QEP ENERGY (UT)

QEP Energy Company

Azimuths to True North
Magnetic North: 10.68°

Magnetic Field
Strength: 52183.3snT
Dip Angle: 65.99°
Date: 3/12/2014
Model: IGRF2010

Project: Red Wash - B
Site: RW H1-24-16B
Well: RW H1-24-16B
Wellbore: Original Hole
Design: Plan ver.1

WELL DETAILS: RW H1-24-16B

Ground Level: 5647.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	7250020.300	2245522.380	40.203062	-109.333349	

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well RW H1-24-16B, True North
Vertical (TVD) Reference: RKB @ 5677.00usft (EST RKB)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: RKB @ 5677.00usft (EST RKB)
Calculation Method: Minimum Curvature

PROJECT DETAILS: Red Wash - B

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Utah Central Zone

System Datum: Mean Sea Level

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
RW H1-24-16B	11325.62	4532.14	1062.37	7254576.480	2246474.590	Point

CASING DETAILS

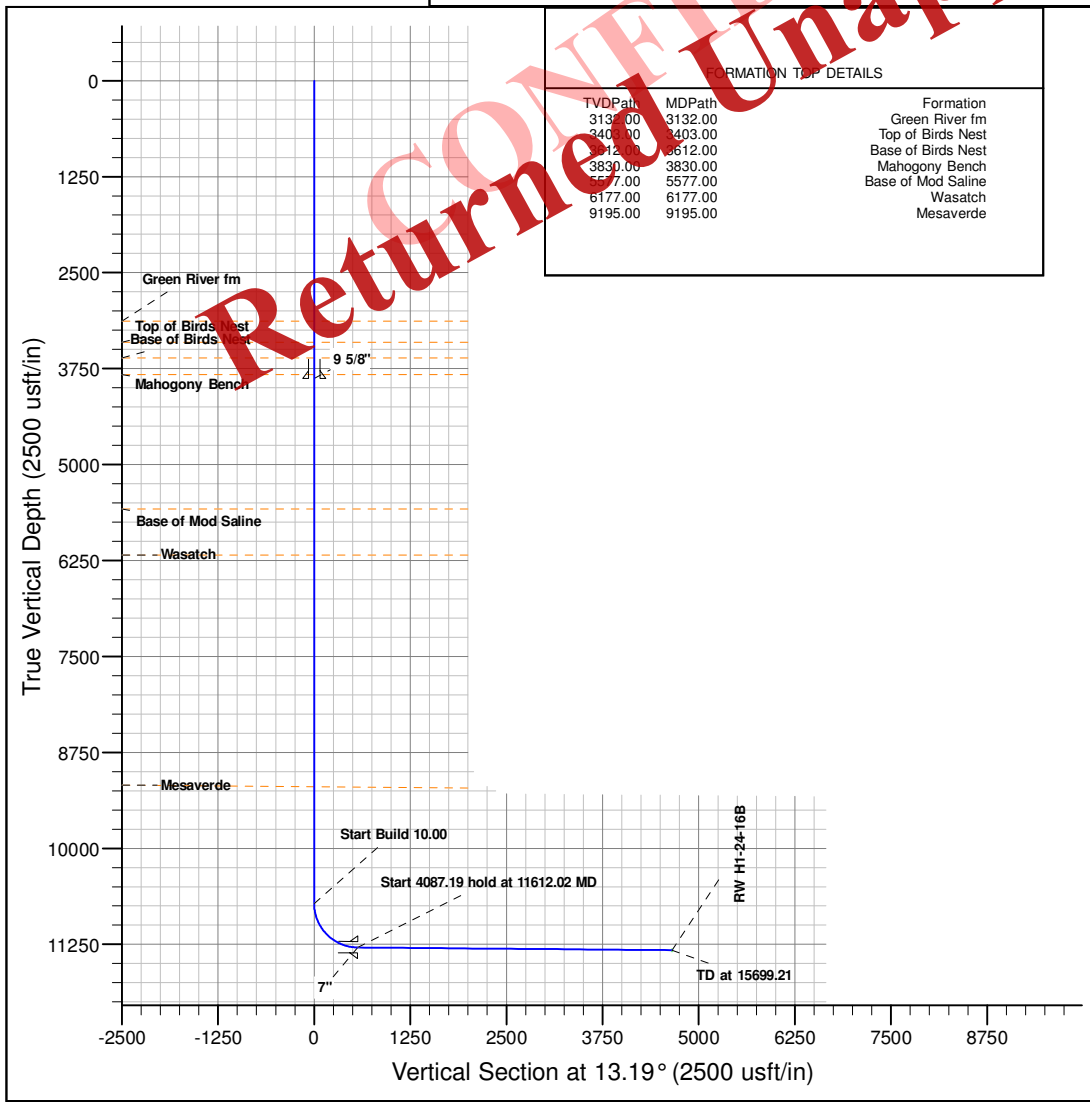
TVD	MD	Name	Size
3880.00	3880.00	9 5/8"	9-5/8
11289.95	11612.02	7"	7

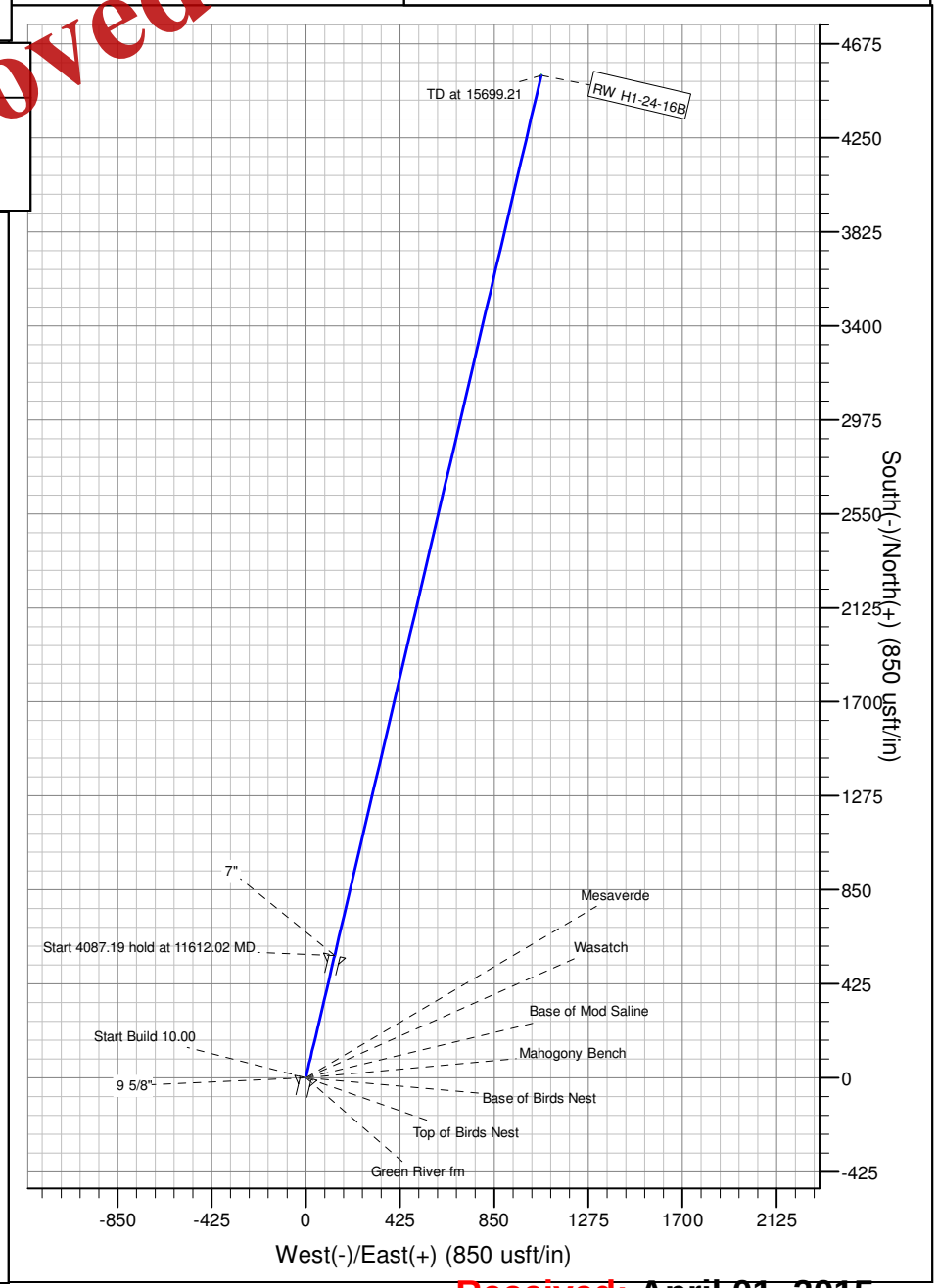
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10717.02	0.00	0.00	10717.02	0.00	0.00	0.00	0.00
11612.02	89.50	13.19	11289.95	552.97	129.62	10.00	567.96
15699.21	89.50	13.19	11325.62	4532.14	1062.37	0.00	4654.99

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3132.00	3132.00	Green River fm
3403.00	3403.00	Top of Birds Nest
3612.00	3612.00	Base of Birds Nest
3830.00	3830.00	Mahogony Bench
5577.00	5577.00	Base of Mod Saline
6177.00	6177.00	Wasatch
9195.00	9195.00	Mesaverde





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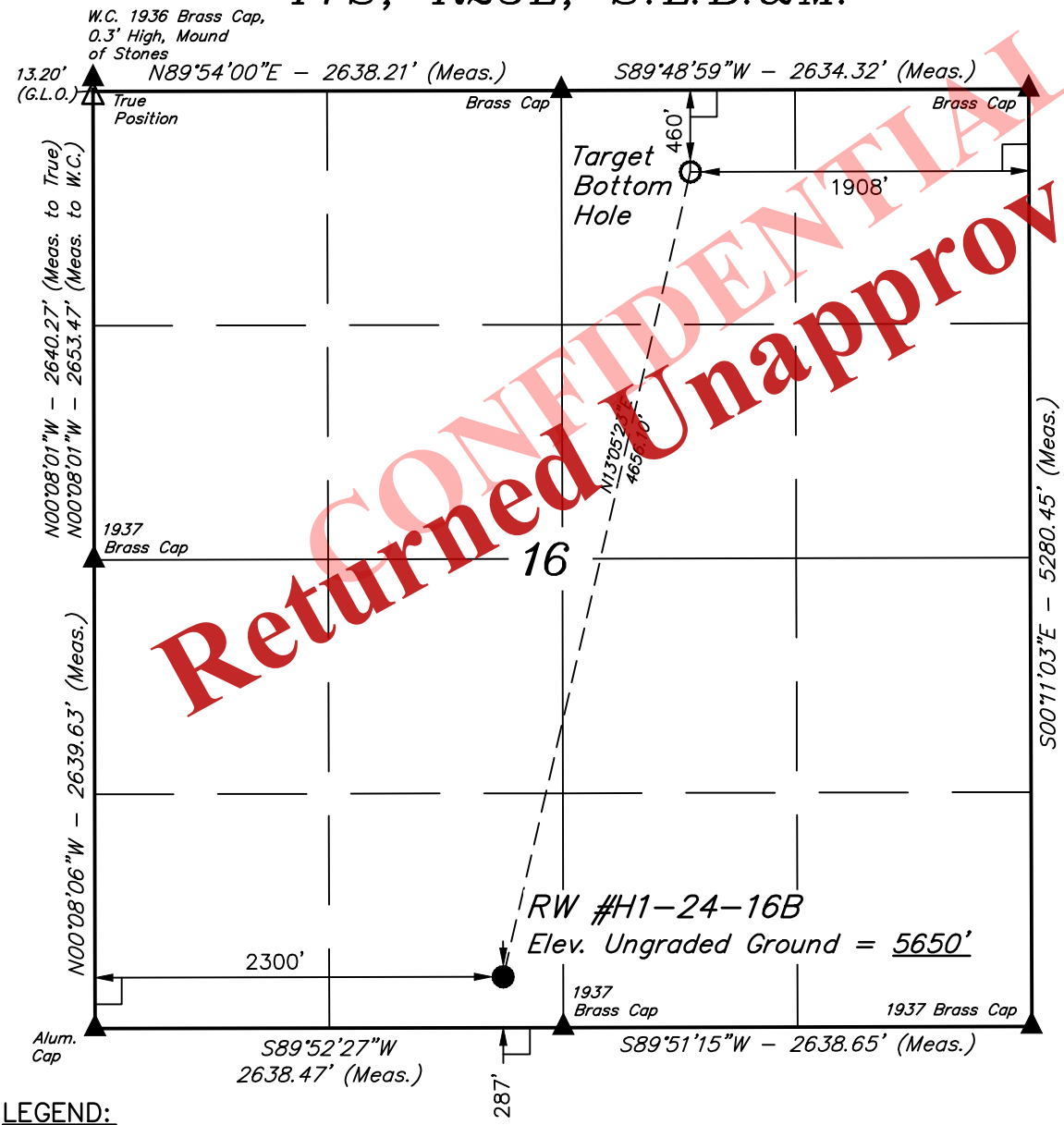
Received: April 01, 2015

T7S, R23E, S.L.B.&M.



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QEP ENERGY COMPANY

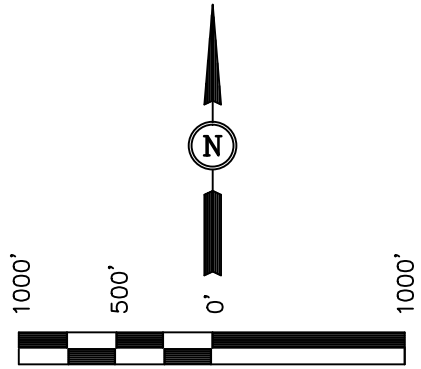
Well location, RW #H1-24-16B, located as shown in the SE/4 SW/4 of Section 16, T7S, R23E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK 20EAM LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



SCALE

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

03-05-14

REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH

LEGEND:

- └ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground.)

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 40°12'55.81" (40.215503)	LATITUDE = 40°12'11.02" (40.203061)
LONGITUDE = 109°19'46.36" (109.329544)	LONGITUDE = 109°20'00.06" (109.333350)
NAD 27 (TARGET BOTTOM HOLE)	**NAD 27 (SURFACE LOCATION)**
LATITUDE = 40°12'55.94" (40.215539)	LATITUDE = 40°12'11.15" (40.203097)
LONGITUDE = 109°19'43.90" (109.328861)	LONGITUDE = 109°19'57.60" (109.332667)
STATE PLANE NAD 83	**STATE PLANE NAD 83**
N: 7254576.48 E: 2246474.59	N: 7250020.30 E: 2245522.38

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 02-06-14	DATE DRAWN: 02-20-14
PARTY B.H. J.C. S.S.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE QEP ENERGY COMPANY	

Received: March 26, 2014

QEP ENERGY COMPANY

RW #H1-24-16B

LOCATED IN UINTAH COUNTY, UTAH
SECTION 16, T7S, R23E, S.L.B.&M.

PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE **CAMERA ANGLE: SOUTHERLY**

PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS **CAMERA ANGLE: SOUTHEASTERLY**

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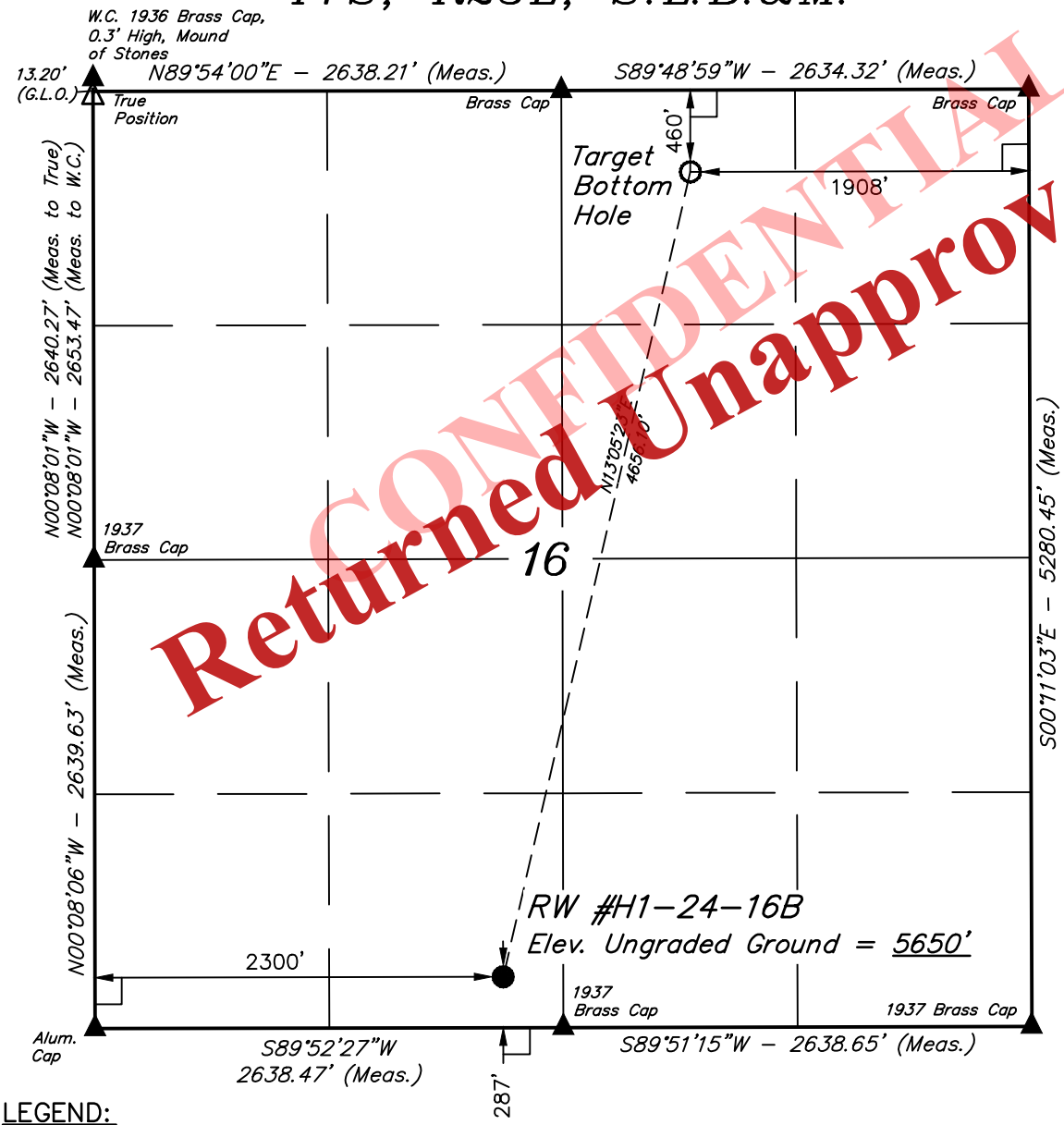
- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

LOCATION PHOTOS	03 MONTH	04 DAY	14 YEAR	PHOTO
TAKEN BY: B.H.	DRAWN BY: L.S.	REVISED: 00-00-00		

Received: March 26, 2014

T7S, R23E, S.L.B.&M.



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QEP ENERGY COMPANY

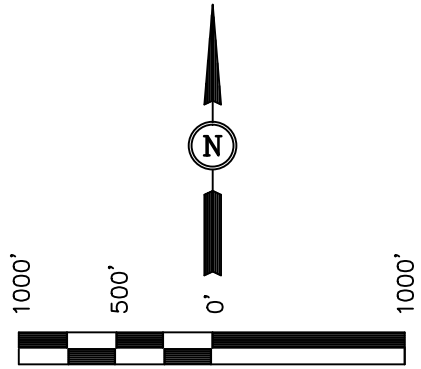
Well location, RW #H1-24-16B, located as shown in the SE/4 SW/4 of Section 16, T7S, R23E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK 20EAM LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



SCALE

CERTIFICATE

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REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

03-05-14

REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH

LEGEND:

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LONGITUDE = 109°19'43.90" (109.328861)	LONGITUDE = 109°19'57.60" (109.332667)
STATE PLANE NAD 83	**STATE PLANE NAD 83**
N: 7254576.48 E: 2246474.59	N: 7250020.30 E: 2245522.38

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 02-06-14	DATE DRAWN: 02-20-14
PARTY B.H. J.C. S.S.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE QEP ENERGY COMPANY	

Received: March 26, 2014

QEP ENERGY COMPANY

LOCATION LAYOUT FOR

RW #H1-24-16B

SECTION 16, T7S, R23E, S.L.B.&M.

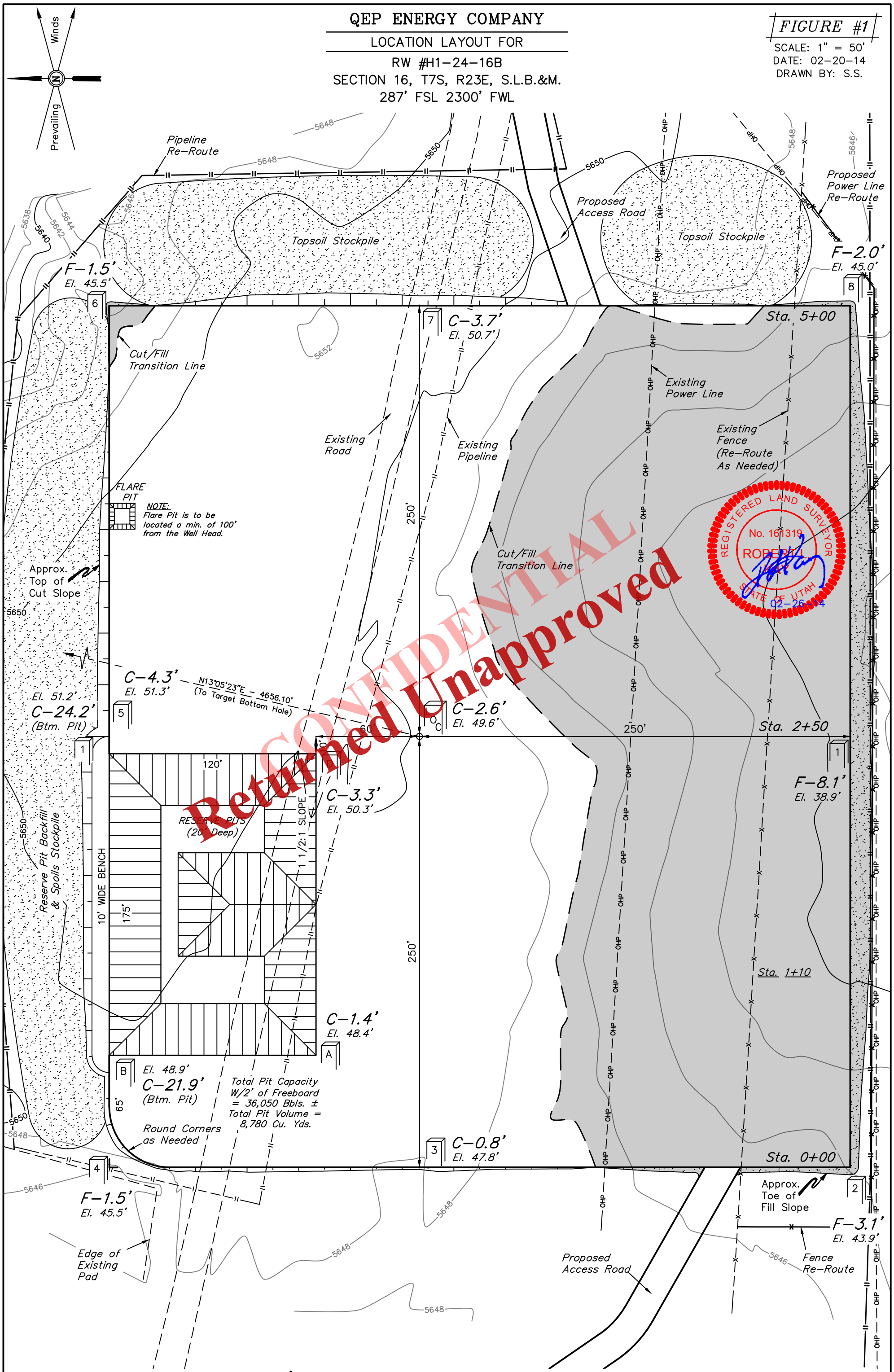
287' FSL 2300' FWL

FIGURE #1

SCALE: 1" = 50'

DATE: 02-20-14

DRAWN BY: S.S.



Elev. Ungraded Ground At Loc. Stake = 5649.6'

FINISHED GRADE ELEV. AT LOC. STAKE = 5647.0'

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QEP ENERGY COMPANY

TYPICAL CROSS SECTIONS FOR

RW #H1-24-16B

SECTION 16, T7S, R23E, S.L.B.&M.

287' FSL 2300' FWL

1" = 20' X-Section Scale

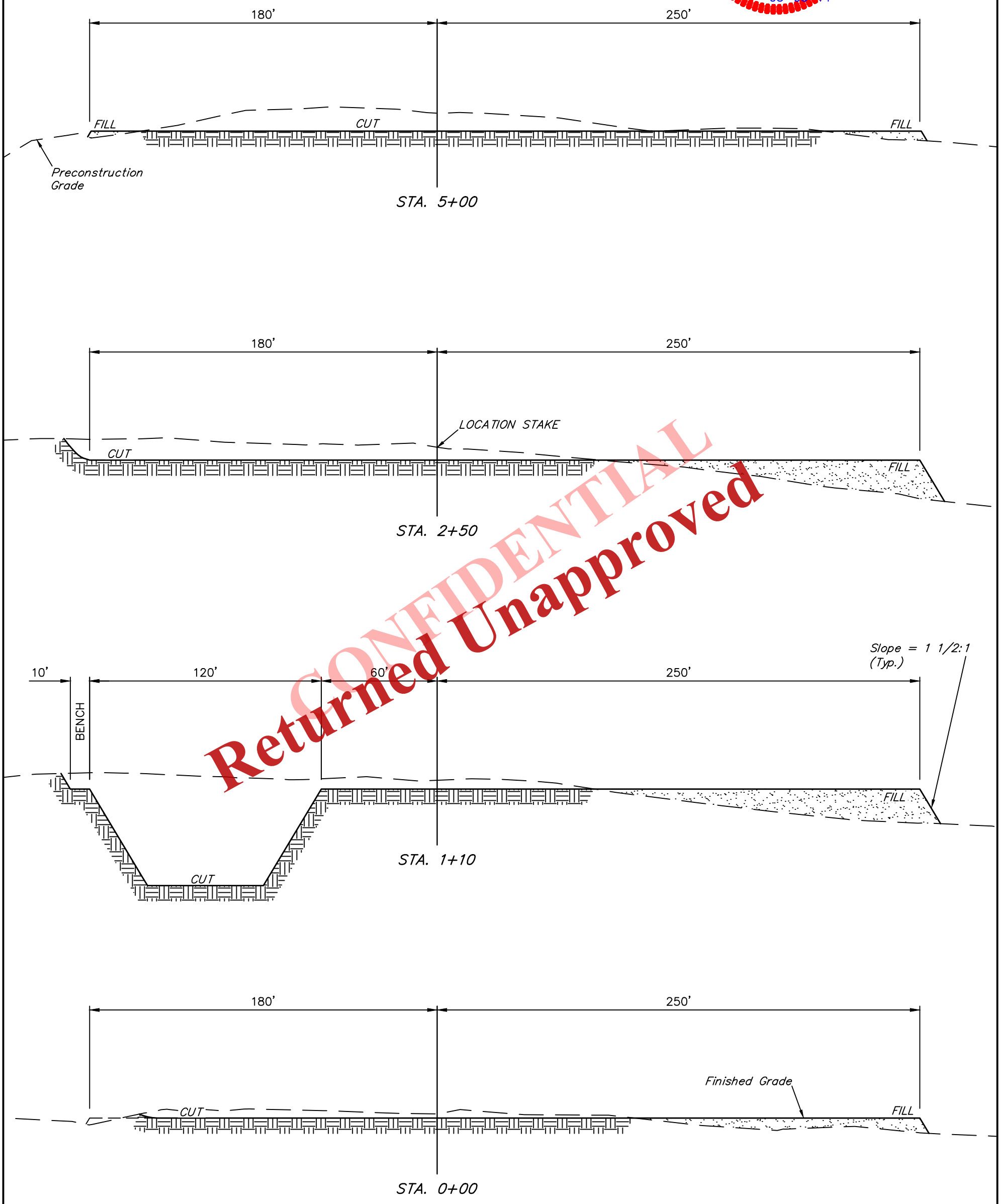
1" = 50'

DATE: 02-20-14

DRAWN BY: S.S.

REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH 03-05-14

FIGURE #2



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NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

(6") Topsoil Stripping	=	4,190 Cu. Yds.
Remaining Location	=	19,390 Cu. Yds.
TOTAL CUT	=	23,580 CU. YDS.
FILL	=	15,000 CU. YDS.

EXCESS MATERIAL	=	8,580 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	8,580 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	=	0 Cu. Yds.

APPROXIMATE ACREAGE

WELL SITE DISTURBANCE	=	± 7.908 ACRES
ACCESS ROAD DISTURBANCE	=	± 0.376 ACRES
PIPELINE DISTURBANCE	=	± 0.057 ACRES
TOTAL	=	± 8.341 ACRES

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TYPICAL RIG LAYOUT FOR

RW #H1-24-16B

SECTION 16, T7S, R23E, S.L.B.&M.

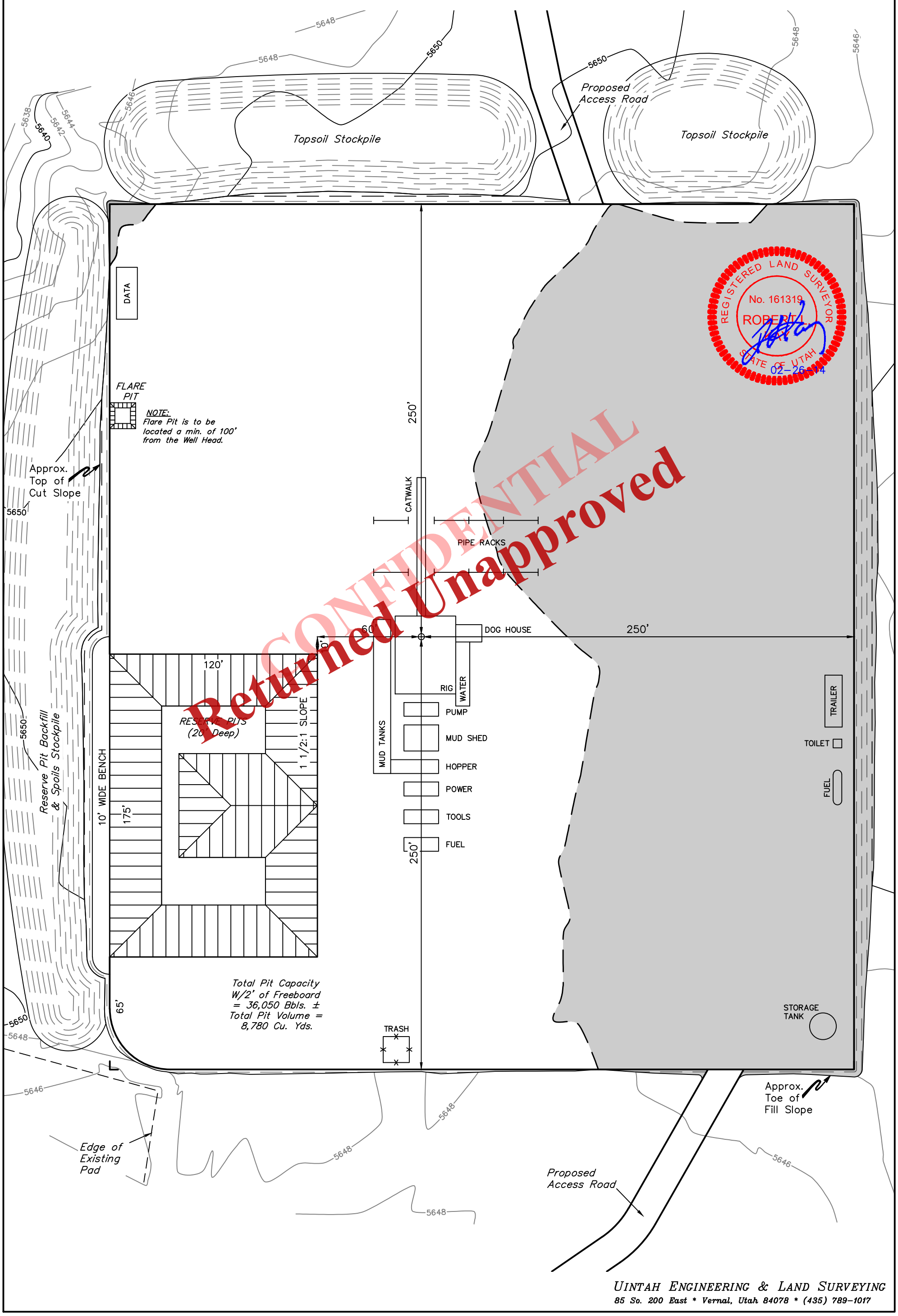
287' FSL 2300' FWL

FIGURE #3

SCALE: 1" = 50'

DATE: 02-20-14

DRAWN BY: S.S.



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QEP ENERGY COMPANY

PRODUCTION FACILITY LAYOUT FOR

RW #H1-24-16B

SECTION 16, T7S, R23E, S.L.B.&M.

287' FSL 2300' FWL

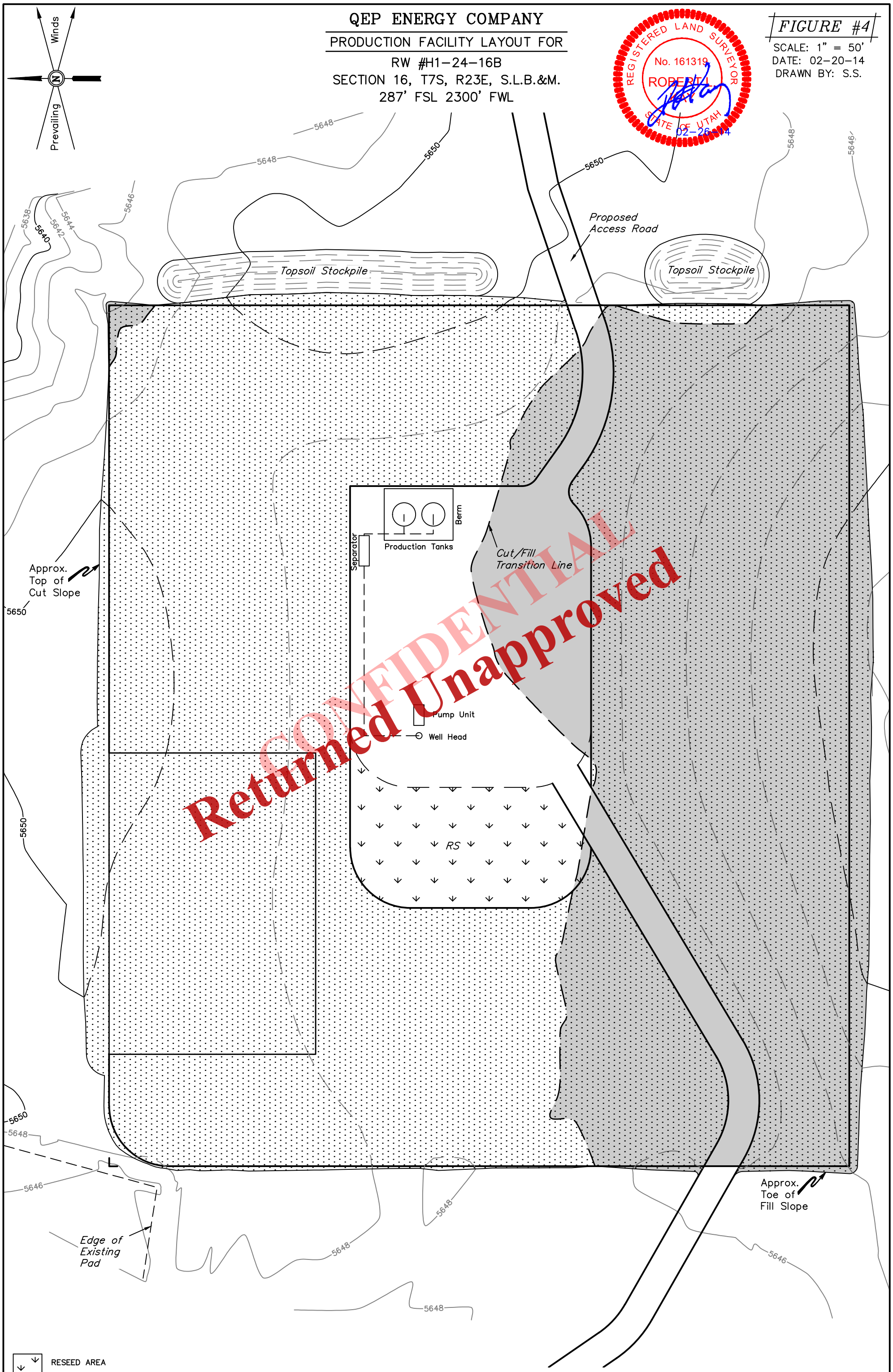
FIGURE #4

SCALE: 1" = 50'

DATE: 02-20-14

DRAWN BY: S.S.

REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH 02-26-14



APPROXIMATE ACREAGE

UN-RECLAIMED = ± 0.912 ACRES

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QEP ENERGY COMPANY
RW #H1-24-16B
SECTION 16, T7S, R23E, S.L.B.&M.

PROCEED IN AN EASTERLY, THEN SOUTHERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 4.0 MILES TO THE JUNCTION OF STATE HIGHWAY 45; EXIT RIGHT AND PROCEED IN A SOUTHERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 18.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN A EASTERLY DIRECTION APPROXIMATELY 0.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTHEAST; FOLLOW ROAD FLAGS IN A EASTERLY DIRECTION APPROXIMATELY 486' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 23.6 MILES.

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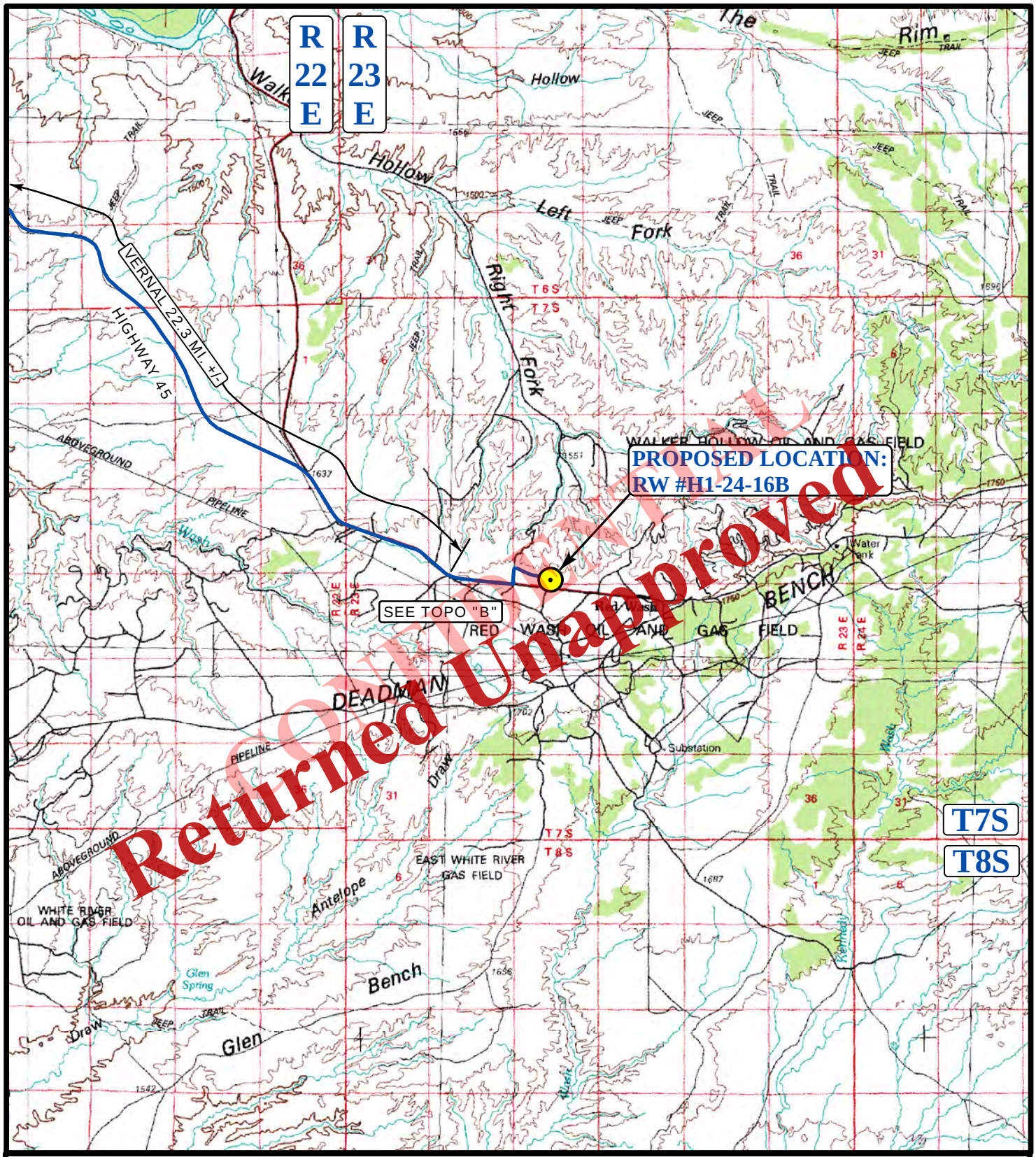


LEGEND:

PROPOSED LOCATION

N

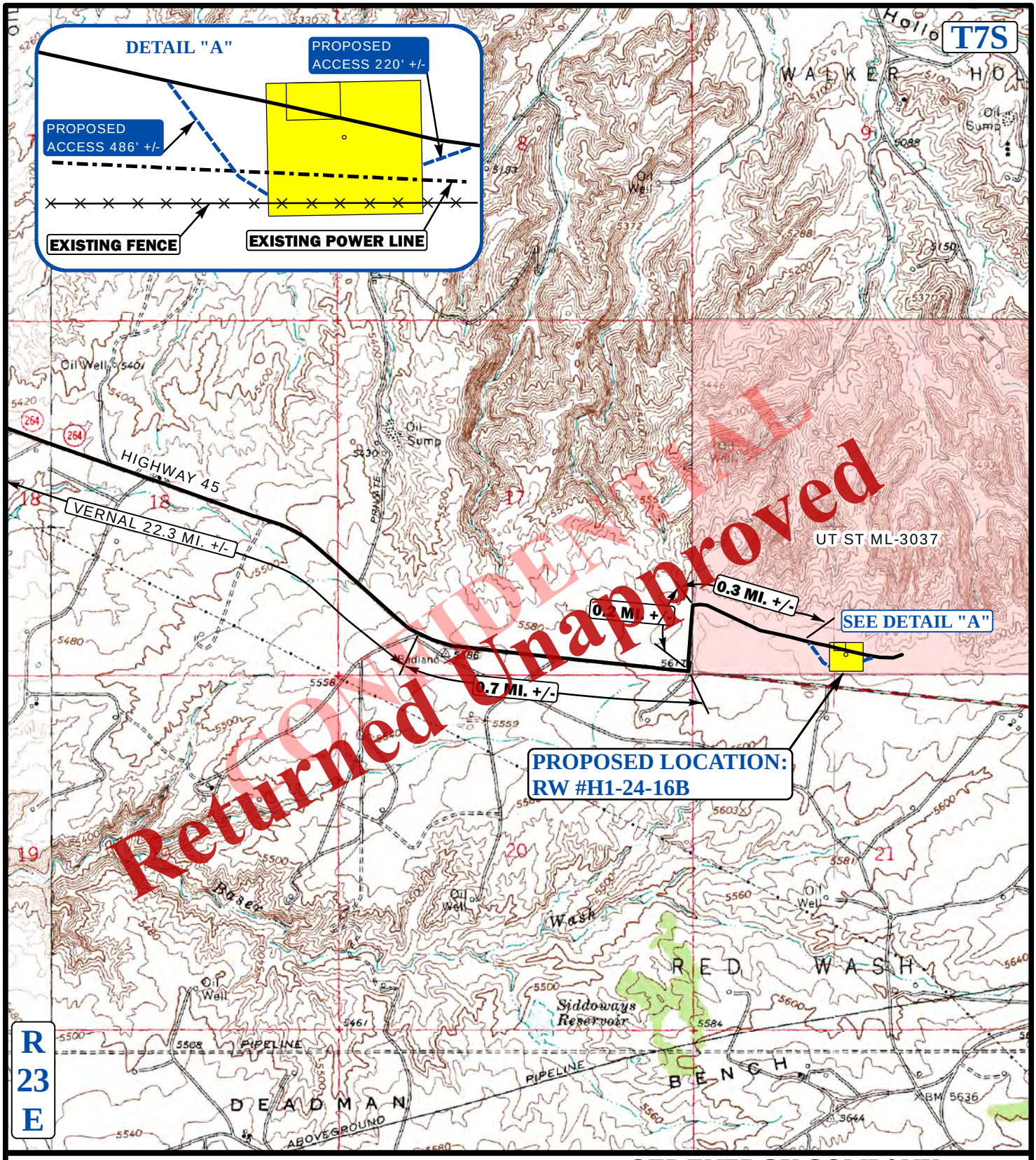
QEP ENERGY COMPANY

RW #H1-24-16B
SECTION 16, T7S, R23E, S.L.B.&M.
287' FSL 2300' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

ACCESS ROAD MAP	03 MONTH	04 DAY	14 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: L.S.	REVISION: 00-00-00		

Received: March 26, 2014



LEGEND:

- EXISTING ROADS
- PROPOSED ROADS
- EXISTING FENCE
- EXISTING POWER LINE

N

QEP ENERGY COMPANY

RW #H1-24-16B
SECTION 16, T7S, R23E, S.L.B.&M.
287' FSL 2300' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
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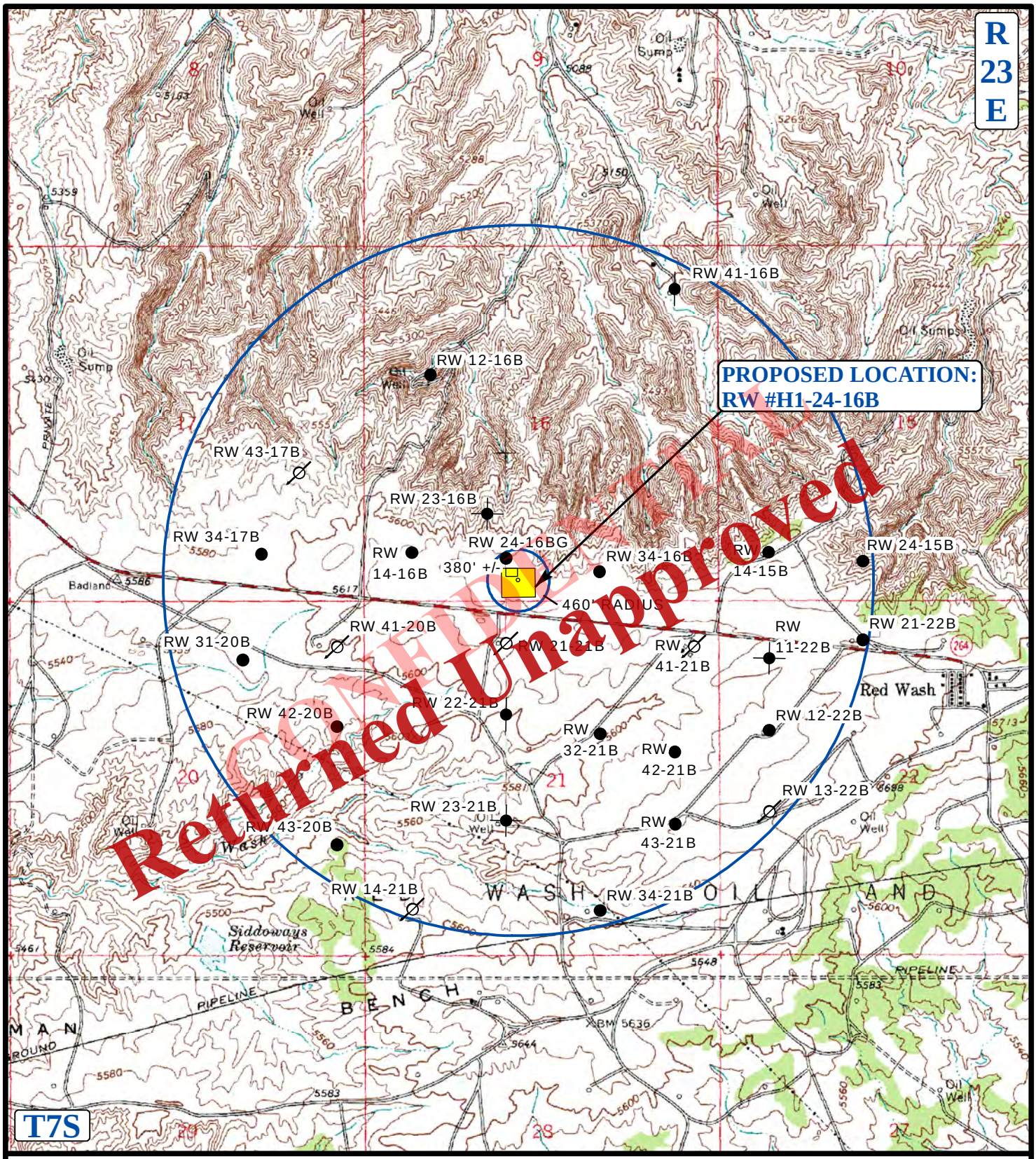
ACCESS ROAD MAP	03 MONTH	04 DAY	14 YEAR	B TOPO
SCALE: 1"= 2000'	DRAWN BY: L.S.	REVISION: 00-00-00		

Received: March 26, 2014



LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- ABANDONED WELLS
- SHUT IN WELLS
- TEMPORARILY ABANDONED

N

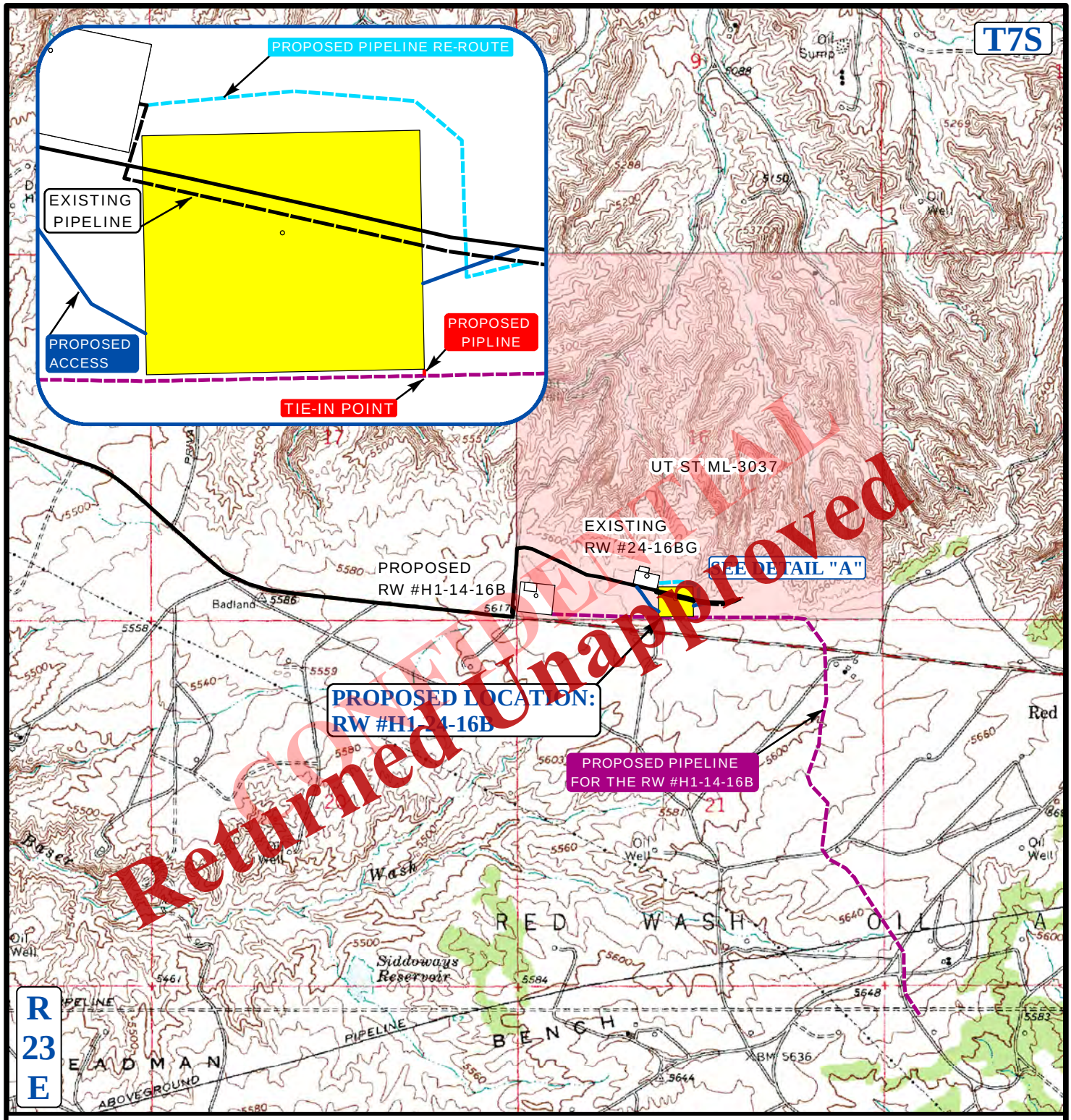
QEP ENERGY COMPANY

RW #H1-24-16B
SECTION 16, T7S, R23E, S.L.B.&M.
287' FSL 2300' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

ACCESS ROAD MAP	03 MONTH	04 DAY	14 YEAR	C TOPO
SCALE: 1"= 2000'	DRAWN BY: L.S.	REVISION: 00-00-00		

Received: March 26, 2014



APPROXIMATE TOTAL PIPELIINE DISTANCE = 11' +/-

APPROXIMATE TOTAL PIPELIINE RE-ROUTE DISTANCE = 949' +/-

LEGEND:

- EXISTING ROADS
- PROPOSED ACCESS ROAD
- PROPOSED PIPELINE
- PROPOSED PIPELINE RE-ROUTE
- EXISTING PIPELINE
- PROPOSED PIPELINE (SERVICING OTHER WELLS)

N

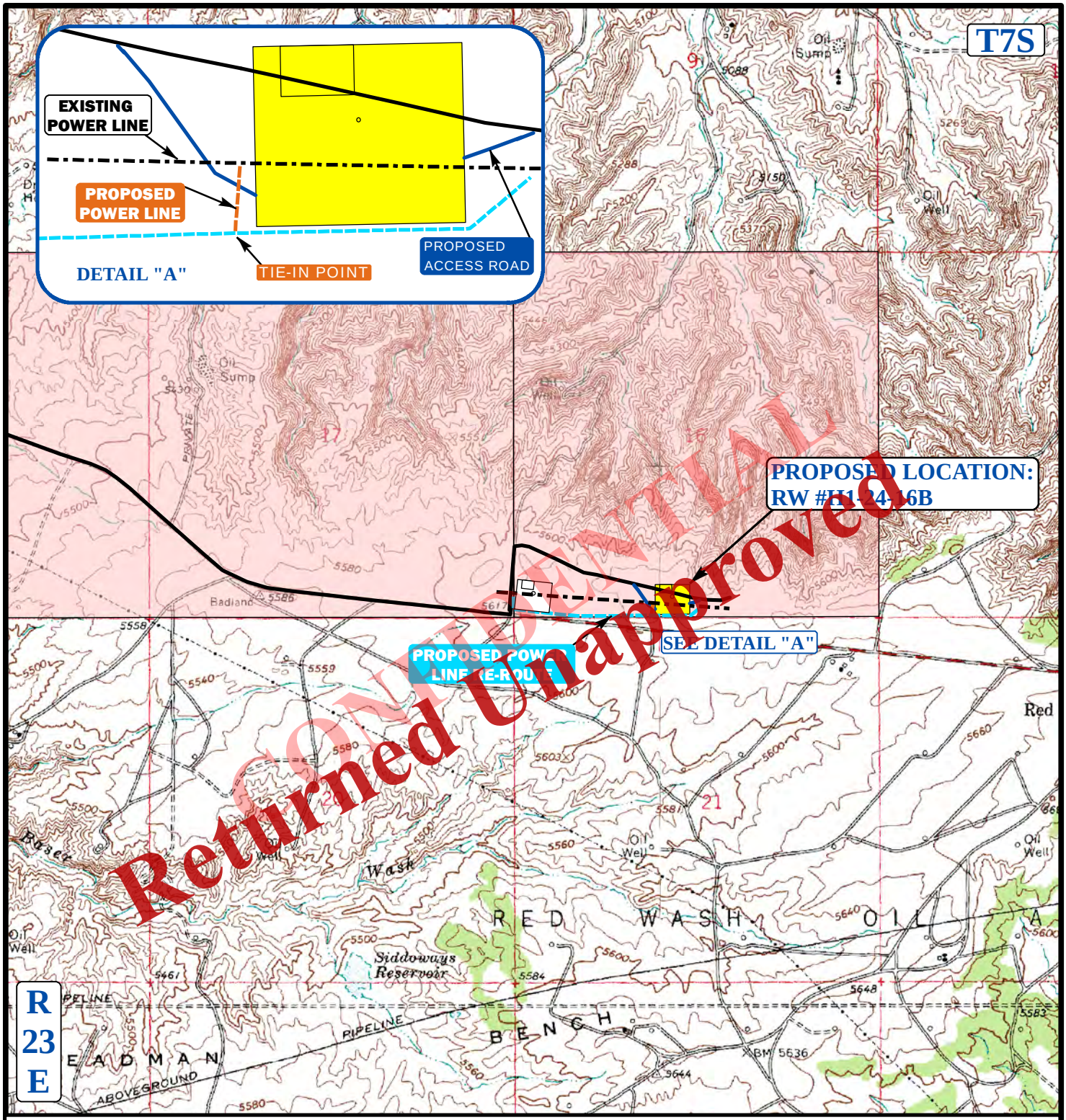
QEP FIELD SERVICES COMPANY

RW #H1-24-16B
SECTION 16, T7S, R23E, S.L.B.&M.
287' FSL 2300' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	03 MONTH	04 DAY	14 YEAR	D TOPO
SCALE: 1"= 2000'	DRAWN BY: L.S.	REVISION: 00-00-00		

Received: March 26, 2014



APPROXIMATE TOTAL POWER LINE RE-ROUTE DISTANCE = 2,933' +/-

APPROXIMATE TOTAL POWER LINE DISTANCE = 197' +/-

LEGEND:

- EXISTING ROADS
- PROPOSED ACCESS ROAD
- PROPOSED POWER LINE
- EXISTING POWER LINE
- PROPOSED POWER LINE RE-ROUTE

N

QEP ENERGY COMPANY

RW #H1-24-16B
SECTION 16, T7S, R23E, S.L.B.&M.
287' FSL 2300' FWL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	03 MONTH	04 DAY	14 YEAR
SCALE: 1"= 2000'	DRAWN BY: L.S.	REVISION: 00-00-00	

E TOPO

Received: March 26, 2014

035106

UUI35-038-00

ENTRY 99004922
BOOK 706 PAGE 540-581 $92.00
16-JUL-99 01:25
RANDY SIMMONS
RECORDER, UINTAH COUNTY, UTAH
CHEVRON USA INC
PO BOX 36366 HOUSTON TX 77236-9961
REC BY: SYLENE ACCUTTOROOP , DEPUTY

ENTRY 99004922
BOOK 706 PAGE 540

STATE OF UTAH PATENT NO. 19253

WHEREAS, CHEVRON USA PRODUCTION COMPANY, A DIVISION OF CHEVRON USA, INC., P.O. Box 36366, Houston, TX 77236, heretofore purchased from the State of Utah, the lands hereinafter described, pursuant to the laws of said State,

AND WHEREAS, the said CHEVRON USA PRODUCTION COMPANY, A DIVISION OF CHEVRON USA, INC., has paid for said lands, pursuant to the conditions of said sale. and the laws of the State duly enacted in relation thereto,

and all legal interest thereon accrued, as fully appears by the certificate of the proper officer, now on file in the office of the Lieutenant Governor of the State of Utah;

NOW THEREFORE I, MICHAEL O. LEAVITT, Governor, by virtue of the power and authority vested in me by the laws of the State of Utah, do issue this PATENT, in the name and by the authority of the State of Utah, hereby granting and confirming unto the said CHEVRON USA PRODUCTION COMPANY, A DIVISION OF CHEVRON USA, INC., and to its successors and assigns forever, the following tract or parcel of land, situated in the County of Uintah, State of Utah, to-wit:

<u>Township 7 South, Range 23 East, SLB&M</u>
Section 16: All

Containing 640.00 acres, more or less

TO HAVE AND TO HOLD the above described and granted premises unto the said CHEVRON USA PRODUCTION COMPANY, A DIVISION OF CHEVRON USA, INC., and to its successors and assigns forever,

Excepting and reserving to the Trust Lands Administration those lands within the exterior boundaries of those certain paleontological sites designated by the Utah State Paleontologist as vertebrate fossil localities 42Un1169v through 42Un1201v, and any other exposures that may be discovered hereafter; together with a right of access across the subject lands to these localities; together with all specimens and paleontological deposits contained within each locality, the localities being more specifically described in Exhibit "A" to this Patent, which exhibit is incorporated by reference herein; and further provided that such reservation of lands shall terminate, and title to the site vest in the

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Received: March 26, 2014

ENTRY 99004922
BOOK 706 PAGE 541

Chevron USA Production Company, its successors and assigns, or its successors and assigns, upon recorded certification by the State of Utah that appropriate recovery of paleontological data and specimens from the localities has occurred; or such time as the State of Utah may terminate this reservation of title ownership to the localities, replacing this reservation with restrictive covenants running with the land. Chevron USA Production Company, its successors and assigns, shall comply with the Utah Geological Survey Act, U.C.A. § 63-73-11 et seq. and § 63-73-19 (1995), or any amending or replacing legislation for all land within the parcel below the 5600 foot contour, as if the Trust Lands Administration held title to all such land, including:

A. Prior to commencing any undertaking (as defined in Trust Lands Administration rule R850-60-200), development or change in use of the land below the 5600 contour, Chevron USA Production Company, its successors and assigns, shall consult with the Trust Lands Administration and request approval for the proposed undertaking, development or change in use.

B. Chevron USA Production Company, its successors and assigns shall, if so directed by the Trust Lands Administration, provide for a paleontological inventory of the undertaking's area of potential effects, and preserve or recover the paleontological data contained in the localities as directed by the Trust Lands Administration.

C. Chevron USA Production Company, its successors and assigns, shall provide the Trust Lands Administration with all collections (i.e., specimens, unprocessed samples, notes and photographs) resulting from paleontological investigations at any of the localities and all subsequent data analyses.

Subject to a reservation to the State of all coal and other mineral deposits, along with the right for the State or other authorized persons to prospect for, mine, and remove the deposits as provided by Statute; also,

Subject to an easement across the property as may be necessary and reasonable to access lands administered by the School and Institutional Trust Lands Administration; also,

Subject to any valid, existing easement or right of way of any kind and any right, interest, reservation or exception appearing of record, and subject also to all rights of way for ditches, tunnels, and telephone and transmission lines that have been or may be constructed by authority of the United States as provided by Statute.

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Received: March 26, 2014

IN TESTIMONY WHEREOF, I have caused the great seal of the State of Utah to be hereunto affixed. Done at Salt Lake City, this twentieth day of April in the year of our Lord, one thousand nine hundred and ninety-nine, and of the independence of the United States of America the two hundred and twenty-third, and in the one hundred and fourth year of the State of Utah.

By the Governor:

Michael O. Leavitt

Olene S. Walker
Lieutenant Governor

David T. Terry, Director
School and Institutional
Trust Lands Administration

APPROVED AS TO FORM
Jan Graham
Attorney General

By
Special Assistant Attorney General

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Recorded Patent Book 39 Page 53
Certificate of Sale No. 24665
Fund: School

Received: March 26, 2014

RECEIVED
JUL 01 2010
QUESTAR CORPORATION
LEGAL DEPARTMENT

UT

Francine Giani
Executive Director
Department of Commerce

Gary Herbert
Governor
State of Utah

Kathy Berg
Director
Division of Corporations
& Commercial Code

STATE OF UTAH
DEPARTMENT OF COMMERCE
DIVISION OF CORPORATIONS & COMMERCIAL CODE
CERTIFICATE OF REGISTRATION

THOMAS C JEPPERSON
QEP ENERGY COMPANY
180 E 100 S
PO BOX 45433
SALT LAKE CITY UT 84145-0433

Access Code
Code: 764611

State of Utah
Department of Commerce
Division of Corporations & Commercial Code

CERTIFICATE OF REGISTRATION

Corporation - Foreign - Profit

This certifies that **QEP ENERGY COMPANY** has been filed and approved on **March 10, 1981** and has been issued the registration number **764611-0143** in the office of the Division and hereby issues this certification thereof.

Kathy Berg

KATHY BERG
Division Director

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*The Access Code is used for Online Applications used by this Division only.

Received: March 26, 2014

AMENDMENT EXPEDITE UT

$112.00

State of Utah
DEPARTMENT OF COMMERCE
Division of Corporations & Commercial Code
Application Amending Authority to Conduct Affairs or Registration

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JUN 24 2010
Utah Div. Of Corp. & Comm. Code

Non-Refundable Processing Fee: Check Here If:

[X] Foreign Profit Corporation $37.00 [ ] Foreign Nonprofit Corporation $37.00

[ ] Foreign Limited Partnership $37.00 [ ] Foreign Limited Liability Company $37.00

File Number: 764611-0143

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JUL 01 2010
QUESTAR CORPORATION
LEGAL DEPARTMENT

If the business name has changed its name in the home state, a copy of the Certificate of Amendment or a certified copy of the amendment must accompany this application.

1. Check either or both of the following which apply:

[X] The name of the entity is changing its name in Utah to the new name of the corporation in the home state.

[ ] The name of the entity is being changed in Utah to comply with Utah State Insurance Regulations.

2. Amending the business name:

Current Name in Utah: Questar Exploration and Production Company

Name of Home State: Texas

Business entity name in home state: QEP Energy Company

*The entity shall use as its name in Utah: QEP Energy Company

If the name is not available in Utah the corporation shall use _____

*The entity shall use its name as set forth, unless this name is not available.

3. Amending the duration of the business existence

The businesses period of duration is changed to: No Change

4. Purpose of the business No Change

5. Amending the state or country of incorporation/registration

The entity's state or country of incorporation/registration is changed to: No Change

6. Under penalties of perjury, I declare this Application to Amend the Certificate of Authority or Registration to be, to the best of my knowledge and belief, true and correct.

Abigail L. Jones — Signature

Corporate Secretary — Title

June 14, 2010 — Date

Under GRAMA (63-2-201), all registration information maintained by the Division is classified as public record. For confidentiality purposes, you may use the business entity physical address rather than the residential or private address of any individual affiliated with the entity.

Mailing/Faxing Information: www.corporations.utah.gov/contactus.html Division's Website: www.corporations.utah.gov

06-24-10P03:41 RCVD

Date: 06/24/2010
Receipt Number: 3242127
Amount Paid: $461.00

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State of Utah
Department of Commerce
Division of Corporations and Commercial Code
I hereby certified that the foregoing has been filed and approved on this 24 day of June 2010 In this office of this Division and hereby issued This Certificate thereof.

Examiner DSwanson Date 6-28-10

Kathy Berg
Kathy Berg
Division Director

UT022 - 03/26/2009 C T Filing Manager Online

Received: March 26, 2014

Corporations Section
P.O.Box 13697
Austin, Texas 78711-3697

Hope Andrade
Secretary of State

Office of the Secretary of State

Certificate of Fact

The undersigned, as Secretary of State of Texas, does hereby certify that on June 08, 2010, QUESTAR EXPLORATION AND PRODUCTION COMPANY, a Domestic For-Profit Corporation (file number 25720800), changed its name to QEP Energy Company.

In testimony whereof, I have hereunto signed my name officially and caused to be impressed hereon the Seal of State at my office in Austin, Texas on June 09, 2010.

Hope Andrade
Secretary of State

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Received: March 26, 2014

JONATHAN W. RICHARDS
ATTORNEY-AT-LAW
60 E. SOUTH TEMPLE, SUITE 1000
SALT LAKE CITY, UTAH 84111
TELEPHONE: 801.321.8847
FAX: 801.328.1707
EMAIL: JRICHARDS@WNLAW.COM

Utah Division of Corporations & Commercial Code
Heber M. Wells Building
160 E 300 S, 1st Floor
Salt Lake City Utah 84111

Re: Name Reservation for QEP Energy Corporation

Dear Sirs,

I hereby release the Business Name Reservation I previously filed for the name QEP Energy Corporation (see attached). Please do not hesitate to contact me at 801-321-8847 if you have any questions or need any additional information in order to process this request.

SIGNED on this the 24th day of May, 2010.

Jonathan W. Richards

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STATE OF UTAH §
§
COUNTY OF SALT LAKE §

BEFORE ME, the undersigned authority, a Notary Public, on this day personally appeared JONATHAN W. RICHARDS, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 24th day of May, 2010.

Notary Public
VITA GARRETT
60 East South Temple, Suite 1000
Salt Lake City, Utah 84111
My Commission Expires
May 27, 2012
State of Utah

Vita Garrett
NOTARY PUBLIC, State of Utah

JWR/opc
2882139_1.DOC

Received: March 26, 2014

This form must be type written or computer gene

Date: 4/22/2010
Receipt Numb 89766
Amount Paid: $88.00

RECEIVED
APR 2 2 2010
Utah Div. Of Corp. & Comm. Cc

State of Utah
DEPARTMENT OF COMMERCE
Division of Corporations & Commercial Code
Application for Reservation of Business Name

Check Here If: Non-Refundable Processing Fee: ☑ New Filing $22.00 ☐ Renewal $22.00 File Number:

The reservation is for 120 days, effective from date of approval. The reservation expires at 5:00 p.m. on the 120 th day.

The Business Name to be Reserved: QEP Energy Corporation

Please describe the intended business use of the reserved name:

All legal business purposes.

This application is **not** for permission to use a business name. It is merely for a reservation of a name. The reservation of a business name does **not** create an ownership right in the name, nor may the name be used until the business entity is fully registered, authorized or incorporated under the laws of this State. In order to register a business entity under the reserved name prior to the 120 day expiration of the name reservation, the name reservation will need to be canceled. I do hereby certify that I have read the foregoing provisions and agree to comply therewith in making and submitting this application,

Applicant Information

Applicant:
List the individual or business entity that will own the Name Reservation on the name line.

Name: Jonathan W. Richards
Entity Number (if a registered business):
Address: 60 E. South Temple #1000
City: Salt Lake City State: Utah Zip: 84111

Under penalties of perjury, I declare that this Name Reservation has been examined by me and is, to the best of my knowledge and belief, true, correct and *complete*.

Signature: 4/21/2010

Under GRAMA (63-2-201), all registration information maintained by the Division is classified as public record. For confidentiality purposes, you may use the business entity physical address rather than the residential or private address of any individual affiliated with the entity.

Mailing/Faxing Information: www.corporations.utah.gov/contactus.html Division's Website: www.corporations.utah.gov

04-22-10P04:08 RCVD

MP

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Received: March 26, 2014

QEP ENERGY COMPANY
RW H1-24-16B
SESW, SECTION 16, T7S, R23E
UINTAH COUNTY, UT
LEASE # UT SL ML-3037

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. Existing Roads:

See attached Wellsite Plats showing directional reference stakes on location, and attached TOPO Map "B" showing access to location from existing roads.

The proposed well site is located approximately 24 miles southwest of Vernal, Utah.

-See attached TOPO Map "A".

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

Existing roads will be maintained and repaired as necessary.

2. Planned Access Roads:

The entire well pad, access road, power line, and pipe line are located on private surface.

Refer to Topo Map B for the location of the proposed access

3. Location of Existing Wells Within a 1-Mile Radius:

A map will be provided with the site-specific APD showing the location of existing wells within a one mile radius.

Please refer to Topo map C.

4. Location of Existing and Proposed Facilities:

The following guidelines will apply if the well is productive.

A containment dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks). These dikes will be constructed of compacted impervious subsoil; hold 110% of the capacity of the largest tank; and, be independent of the back cut. If a Spill Prevention, Control, and Countermeasure (SPCC) Plan is required by the Environmental Protection Agency, the containment dike may be expanded to meet SPCC requirements with approval by the BLM/VFO AO. The specific APD will address additional capacity if such is needed due to environmental concerns. The use of topsoil for the construction of dikes will not be allowed.

All loading lines will be placed inside the berm surrounding the tank batteries.

All permanent (on site six months or longer) above the ground structures

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constructed or installed, including pumping units, will be painted a color approved by the State.

5. Power line

Electrification of the well sites will reduce the emissions and increase reliability by removing the gas venting of pumps for the heat trace system and chemical injection, as well as increase well pad safety by adding lights to the location.

Access into the proposed power lines will be from existing highways and roads. All construction and vehicular traffic will be confined to the authorized access corridor and designated county and/or BLM roads unless otherwise authorized and approved by the regulating agency

All work will be done in accordance with REA specifications.

QEP Energy Company is proposing a 50 ft temporary authorized access and a 15 ft permanent authorized access for power line maintenance. Minimal to no disturbance is required for the power lines following roads and existing ROW's.

The proposed power line will be 197' in length, 15' in width, containing .067 acres.

The existing power line that runs through the proposed pad will be re-routed to the south. The proposed power line re-route will be 2,933' in length, 15' in width, containing approximately 1.009 acres.

6. Location and Type of Water Supply:

Fresh water will be obtained from Wonsits Valley water right # 49-251(which was filed on May 7, 1964,) or Red Wash water right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before1989 is not depleting to the Upper Colorado River System, to supply fresh water for drilling purposes.

7. Source of Construction Materials:

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

8. Methods of Handling Waste Materials:

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids including salts and chemicals will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be used at the next drill site or will be removed and disposed of at an approved waste disposal facility within 6 months after drilling is terminated. Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

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Unless specified in the site specific APD, the reserve pit will be constructed on the location and will not be located within natural drainages, where a flood hazard exists or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

It was determined at the on-site inspection that a pit liner is necessary; the reserve pit will be lined with a synthetic reinforced liner, a minimum of 20 millimeters thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap will be disposed of in the pit.

Reserve pit leaks are considered an undesirable event and will be orally reported to the AO.

Disposal of Produced Water:

After first production, produced wastewater will be confined to the approved pit or storage tank for a period not to exceed 90 days.

After the 90 day period, the produced water will be contained in tanks on location and then hauled by truck to the following pre-approved disposal site:

Red Wash Disposal well located in the SESE, Section 28, T7S, R23E;
West End Disposal located in the NESE, Section 28, T7S, R22E;
NBE 12SWD-10-9-23 Disposal located in NWSW, Section 10, T9S, R23E,
or third-party surface evaporative pits.

Produced water, oil, and other byproducts will not be applied to roads or well pads for control of dust or weeds. The dumping of produced fluids on roads, well sites, or other areas will not be allowed.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site. The spills will be reported to the AO and other authorities as appropriate.

A chemical porta-toilet will be furnished with the drilling rig. The chemical porta-toilet wastes will be hauled to Ashley Valley Sewer and Water System for disposal.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. Trash will not be burned on location. All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig. All trash and waste material will be hauled to the Uintah County Landfill.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of wells. Furthermore, extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will not be used, produced, stored, transported, or disposed of in association with the drilling, testing, or

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Received: March 26, 2014

completing of wells within these areas. Specific APD's shall address any modifications from this policy.

9. Ancillary Facilities:

The pipe line is located on private surface.

The proposed pipe line will be 11' in length, 30' in width, containing .007 acres.

The existing pipe line that runs through the proposed pad will be re-routed to the north. The proposed pipe line re-route will be 949' in length, 30' in width, containing approximately .653 acres.

10. Well Site Layout:

A Location Layout Diagram describing drill pad cross-sections, cuts and fills, and locations of mud tanks, reserve pits, flare pit or flare box, pipe racks, trailer parking, spoil dirt stockpile(s), and the surface material stockpile(s) will be included with the site specific APD.

Please see the attached diagram rig orientation, parking areas, and access roads, as well as the location of the following:

The reserve pit.

The stockpiled topsoil will not be used for facility berms. All brush removed from the well pad during construction will be stockpiled with the topsoil.

The flare pit or flare box will be located downwind from the prevailing wind direction.

Any drainage that crosses the well location will be diverted around the location by using ditches, water diversion drains or berms. If deemed necessary at the on-site, erosion drains may be installed to contain sediments that could be produced from access roads and well locations.

11. Fencing Requirements:

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

All pits will be fenced according to the following minimum standards:

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner to keep the

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Received: March 26, 2014

fence tight at all times.

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. All wire shall be stretched using a stretching device before it is attached to corner posts.

The reserve pit will be fenced on three (3) sides during drilling operations. The fourth side will be put in place when the rig moves off location. The pit will be fenced and maintained until it is backfilled. If drilling operations does not commence within 3 days, the fourth side of the fence will be installed.

12. <u>Reclamation Plan</u>:

Reclamation will follow QEP Energy Company, Uinta Basin Division's Reclamation Plan, September 2009 (QEP's Reclamation Plan) and the BLM Green River District Reclamation Guidelines.

All trash and debris will be removed from the disturbed area.

The disturbed area will be backfilled with subsoil.

Topsoil will be spread to an even, appropriate depth and disked if needed.

Water courses and drainages will be restored.

Erosion control devices will be installed where needed.

Seeding will be done in the fall, prior to ground freeze up.

Seed mix will be submitted to an AO for approval prior to seeding.

Monitoring and reporting will be conducted as stated in QEP's Reclamation Plan. Weed control will be conducted as stated in QEP's Reclamation Plan.

A reference site has been established and is included in this application.

Please see attached Weed Data Sheet.

Dry Hole/Abandoned Location

On lands administered by the State, abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions may include the reestablishment of irrigation systems; reestablishment of appropriate soil conditions; and, the reestablishment of vegetation as specified.

All disturbed surfaces will be recontoured to approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment.

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At final abandonment, the Operator will cap the casing with a metal plate a minimum of 0.25 inch thick. The cap will be welded in place and the well location and identity will be permanently inscribed on the cap. The cap will be constructed with a weep hole. The depth of the permanent cap will be determined at the time of final abandonment. Long-term reclamation will then be applied and will follow the reclamation process described in this plan. When reclamation is deemed successful by the Operator and the State, the Operator will request a bond release.

13. Surface Ownership:

The well pad, access road, power line, and pipe line are located on lands owned by:

QEP Energy Company
11002 East 17500 South
Vernal, UT 84078

14. Other Information:

Drilling rigs and/or equipment used during drilling operations will not be stacked or stored on Federal lands or State administered lands after the conclusion of drilling operations or at any other time without authorization by the State Authorized Officer. If State authorization is obtained, such storage is only a temporary measure.

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Lessee's or Operator's Representative & Certification:

Valyn Davis
Regulatory Affairs Analyst
QEP Energy Company
11002 East 17500 South
Vernal, UT 84078
(435) 781-4369

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

QEP Energy Company is considered to be the operator of the subject well. QEP Energy Company agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for lease activities is being provided by Bond No. 965010695

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operations; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

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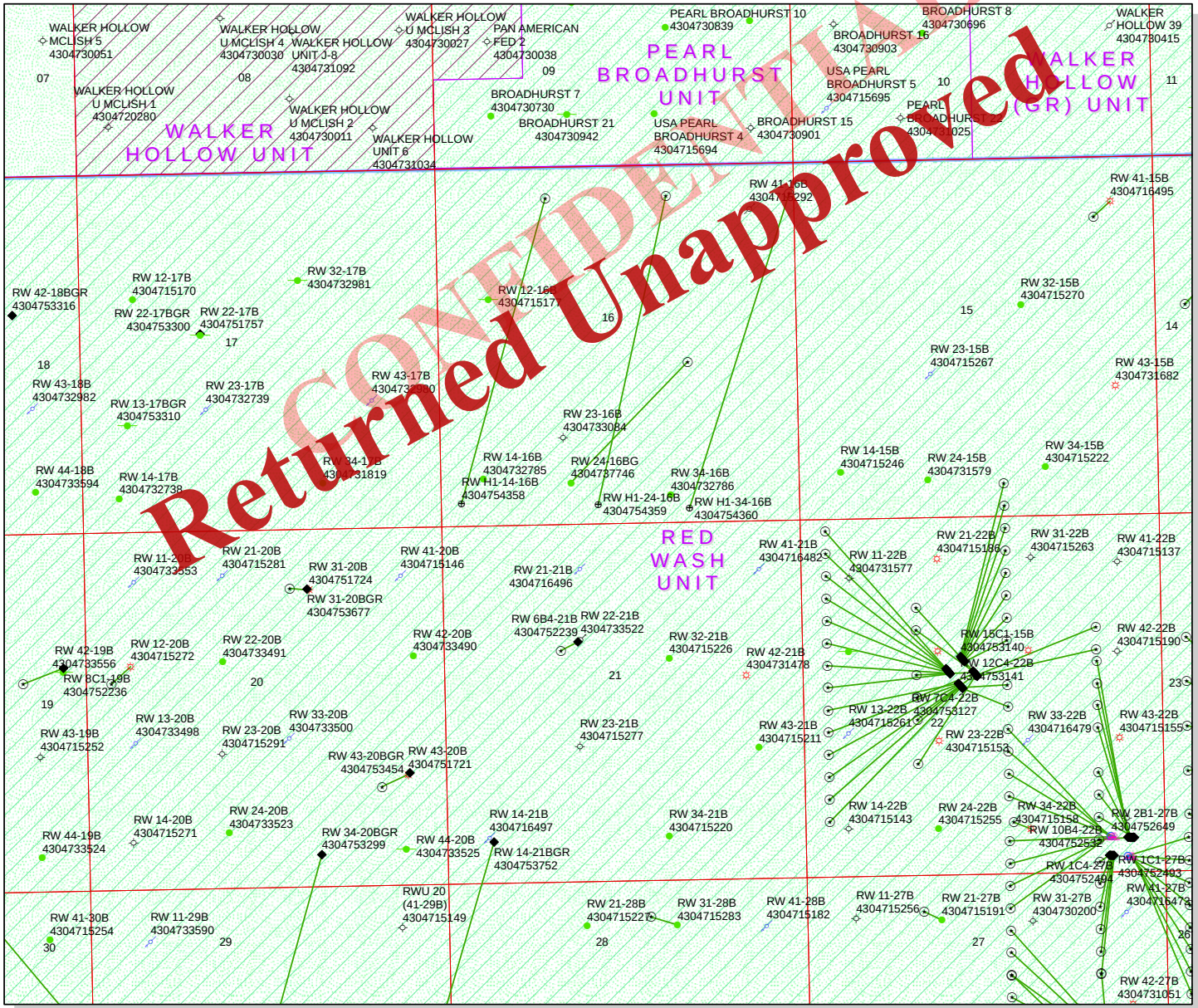
Valyn Davis

Valyn Davis

3/26/2014
Date

Received: March 26, 2014



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API Number: 4304754359

Well Name: RW H1-24-16B

Township: T07.0S Range: R23.0E Section: 16 Meridian: S

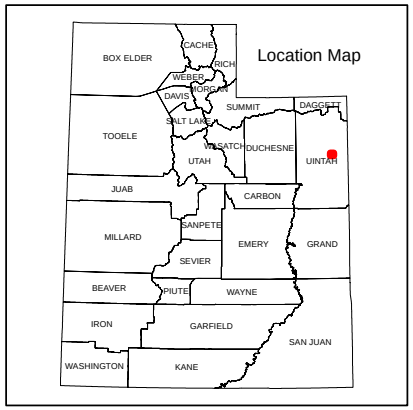
Operator: QEP ENERGY COMPANY

Map Prepared: 3/28/2014
Map Produced by Diana Mason

Wells Query
Status
- APD - Aproved Permit
- DRL - Spuded (Drilling Commenced)
- GIW - Gas Injection
- GS - Gas Storage
- LOC - New Location
- OPS - Operation Suspended
- PA - Plugged Abandoned
- PGW - Producing Gas Well
- POW - Producing Oil Well
- SGW - Shut-in Gas Well
- SOW - Shut-in Oil Well
- TA - Temp. Abandoned
- TW - Test Well
- WDW - Water Disposal
- WIW - Water Injection Well
- WSW - Water Supply Well

Units
STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields
STATUS
- Unknown
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- STORAGE
- TERMINATED



1,800 900 0 1,800 Feet

1:18,250

Received: March 28, 2014

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
440 West 200 South, Suite 500
Salt Lake City, UT 84101

IN REPLY REFER TO:
3160
(UT-922)

March 31, 2014

Memorandum

To: Assistant Field Office Manager Minerals, Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2014 Plan of Development Red Wash Unit, Uintah County, Utah.

Pursuant to email between Diana Mason, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2014 within the Red Wash Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ Mesaverde)		
43-047-54358	RW H1-14-16B	Sec 16 T07S R23E 0338 FSL 0292 FWL
	Lateral 1	Sec 16 T07S R23E 0460 FNL 1596 FWL
43-047-54359	RW H1-14-16B	Sec 16 T07S R23E 0287 FSL 2300 FWL
	Lateral 1	Sec 16 T07S R23E 0460 FNL 1908 FEL
43-047-54360	RW H1-34-16B	Sec 16 T07S R23E 0205 FSL 1648 FEL
	Lateral 1	Sec 16 T07S R23E 0460 FNL 0089 FEL

This office has no objection to permitting the well at this time.

Michael Coulthard

Digitally signed by Michael Coulthard
DN: cn=Michael Coulthard, o=Bureau of Land Management, ou=Division of Minerals, email=mcoultha@blm.gov, c=US
Date: 2014.03.31 15:53:07 -06'00'

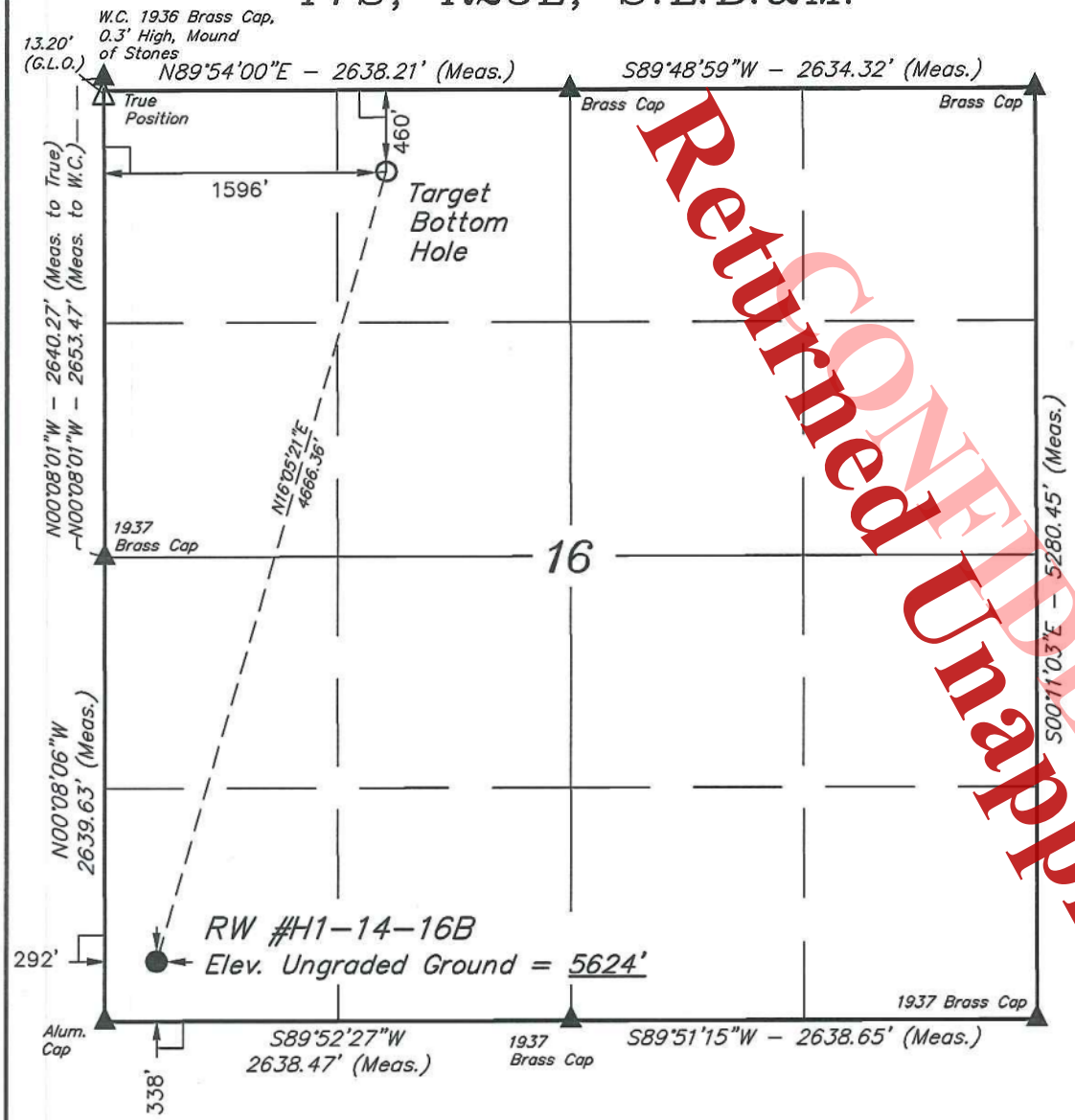
bcc: File - Red Wash Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:3-31-14

CONFIDENTIAL
Returned Unapproved

Received: April 02, 2014

T7S, R23E, S.L.B.&M.



QEP ENERGY COMPANY

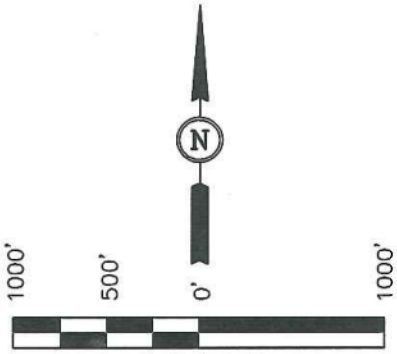
Well location, RW #H1-14-16B, located as shown in the SW/4 SW/4 of Section 16, T7S, R23E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK 20EAM LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



SCALE

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

Bureau of Land Management
CONFIDENTIAL

Returned Unapproved

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LEGEND:

- ∟ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 40°12'55.80" (40.215500)	LATITUDE = 40°12'11.53" (40.203203)
LONGITUDE = 109°20'09.16" (109.335878)	LONGITUDE = 109°20'25.92" (109.340533)
NAD 27 (TARGET BOTTOM HOLE)	**NAD 27 (SURFACE LOCATION)**
LATITUDE = 40°12'55.93" (40.215536)	LATITUDE = 40°12'11.66" (40.203239)
LONGITUDE = 109°20'06.70" (109.335194)	LONGITUDE = 109°20'23.46" (109.339850)
STATE PLANE NAD 83	**STATE PLANE NAD 83**
N: 7254532.67 E: 2244706.76	N: 7250022.64 E: 2243514.83

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 02-04-14	DATE DRAWN: 02-17-14
PARTY B.H. J.S. S.S.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE QEP ENERGY COMPANY	

Received March 09, 2014

QEP Energy Company

Company Name: QEP ENERGY (UT)

Azimuths to True North
Magnetic North: 10.68°
Magnetic Field
Strength: 52182.6snT
Dip Angle: 65.99°
Date: 3/12/2014
Model: IGRF2010

Project: Red Wash - B
Site: RW H1-14-16B
Well: RW H1-14-16B
Wellbore: Original Hole
Design: Plan ver.0

WELL DETAILS: RW H1-14-16B
Original Hole

Ground Level: 5623.60

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	7250022.640	2243514.830	40.203202	-109.340534	

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well RW H1-14-16B, True North
Vertical (TVD) Reference: RKB @ 5654.60usft (EST. RKB)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: RKB @ 5654.60usft (EST. RKB)
Calculation Method: Minimum Curvature

PROJECT DETAILS: Red Wash - B

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Utah Central Zone

System Datum: Mean Sea Level

SECTION DETAILS

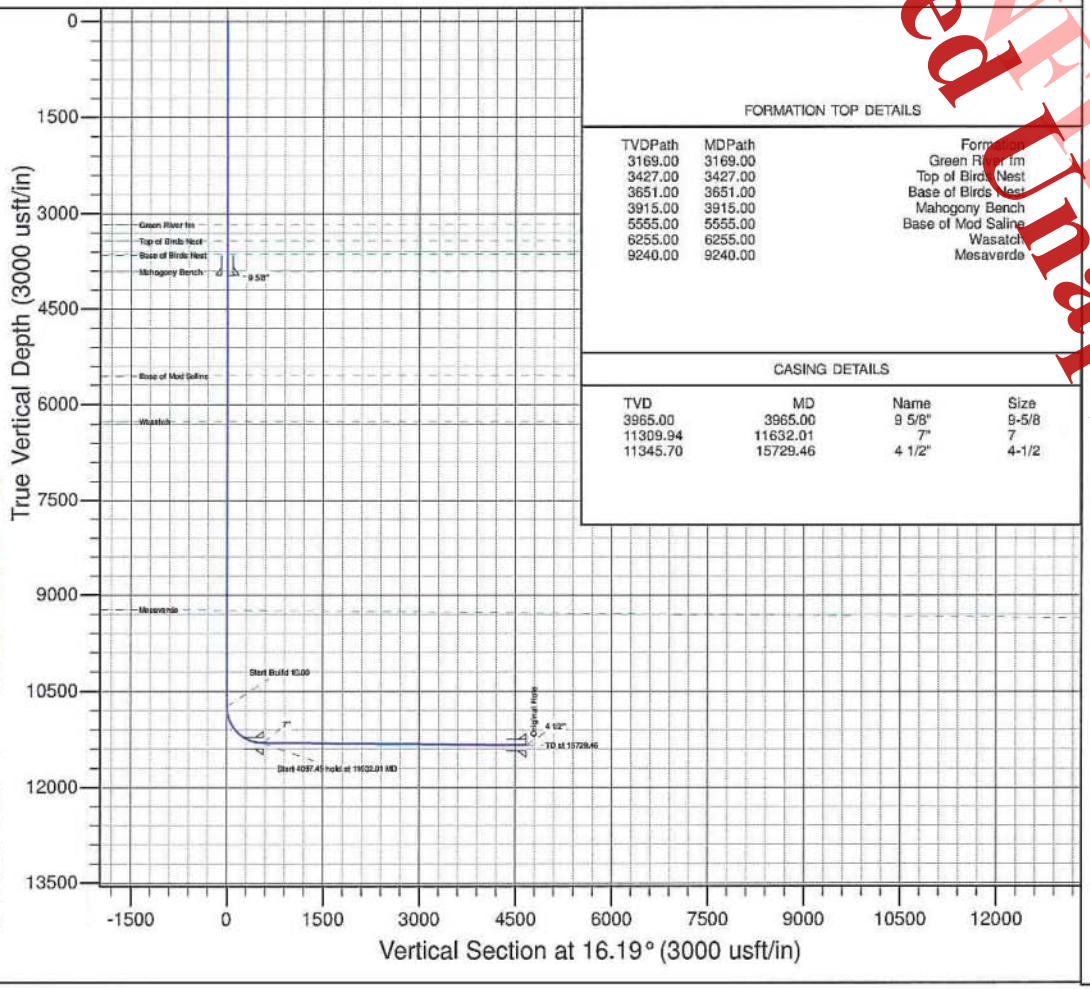
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10737.01	0.00	0.00	10737.01	0.00	0.00	0.00	0.00
11632.01	89.50	16.19	11309.94	545.44	158.33	10.00	567.96
15729.46	89.50	16.19	11345.70	4480.30	1300.56	0.00	4665.25

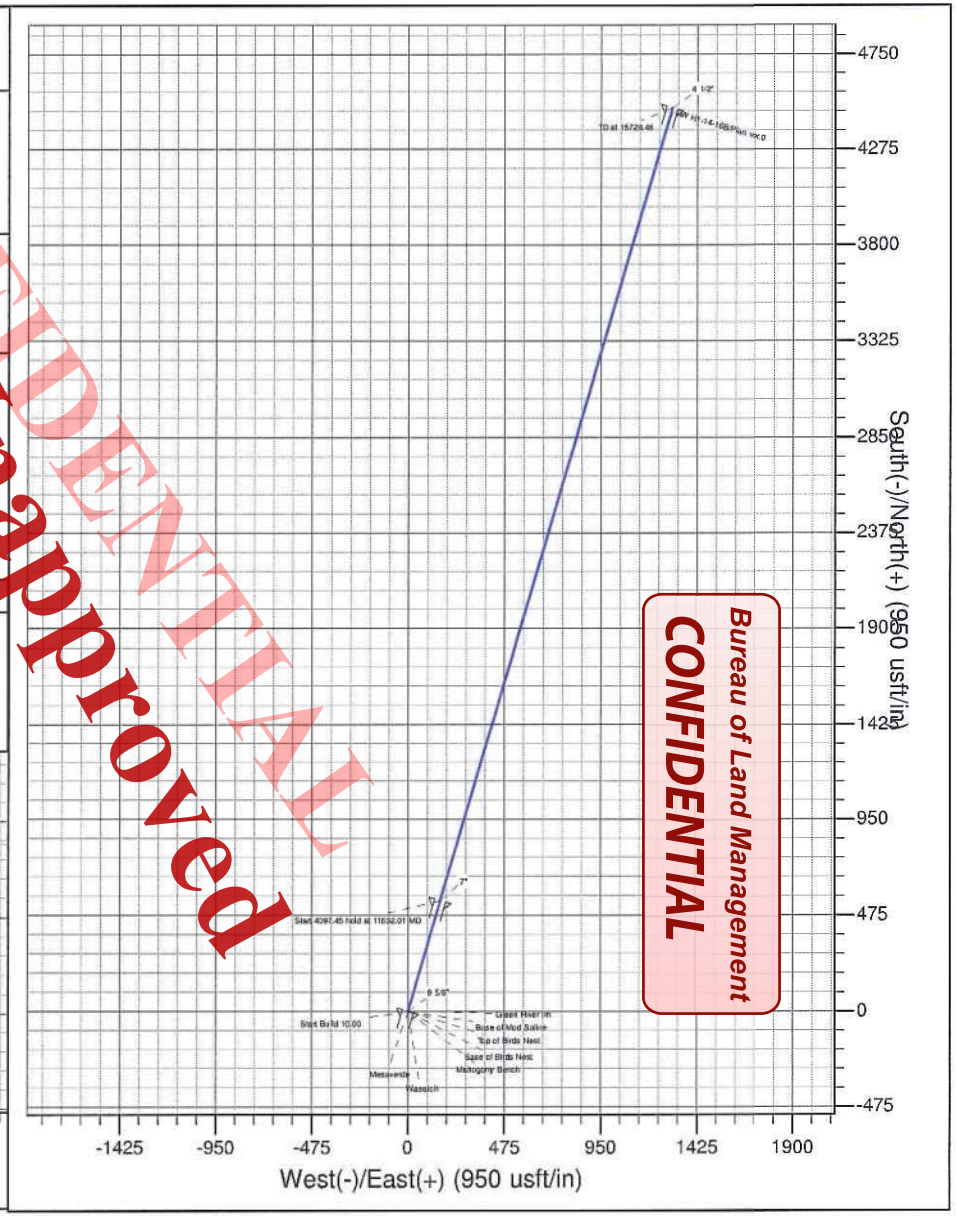
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3169.00	3169.00	Green River fm
3427.00	3427.00	Top of Birds Nest
3651.00	3651.00	Base of Birds Nest
3915.00	3915.00	Mahogony Bench
5555.00	5555.00	Base of Mod Saline
6255.00	6255.00	Wasatch
9240.00	9240.00	Mesaverde

CASING DETAILS

TVD	MD	Name	Size
3965.00	3965.00	9 5/8"	9-5/8
11309.94	11632.01	7"	7
11345.70	15729.46	4 1/2"	4-1/2





Returned Unapproved
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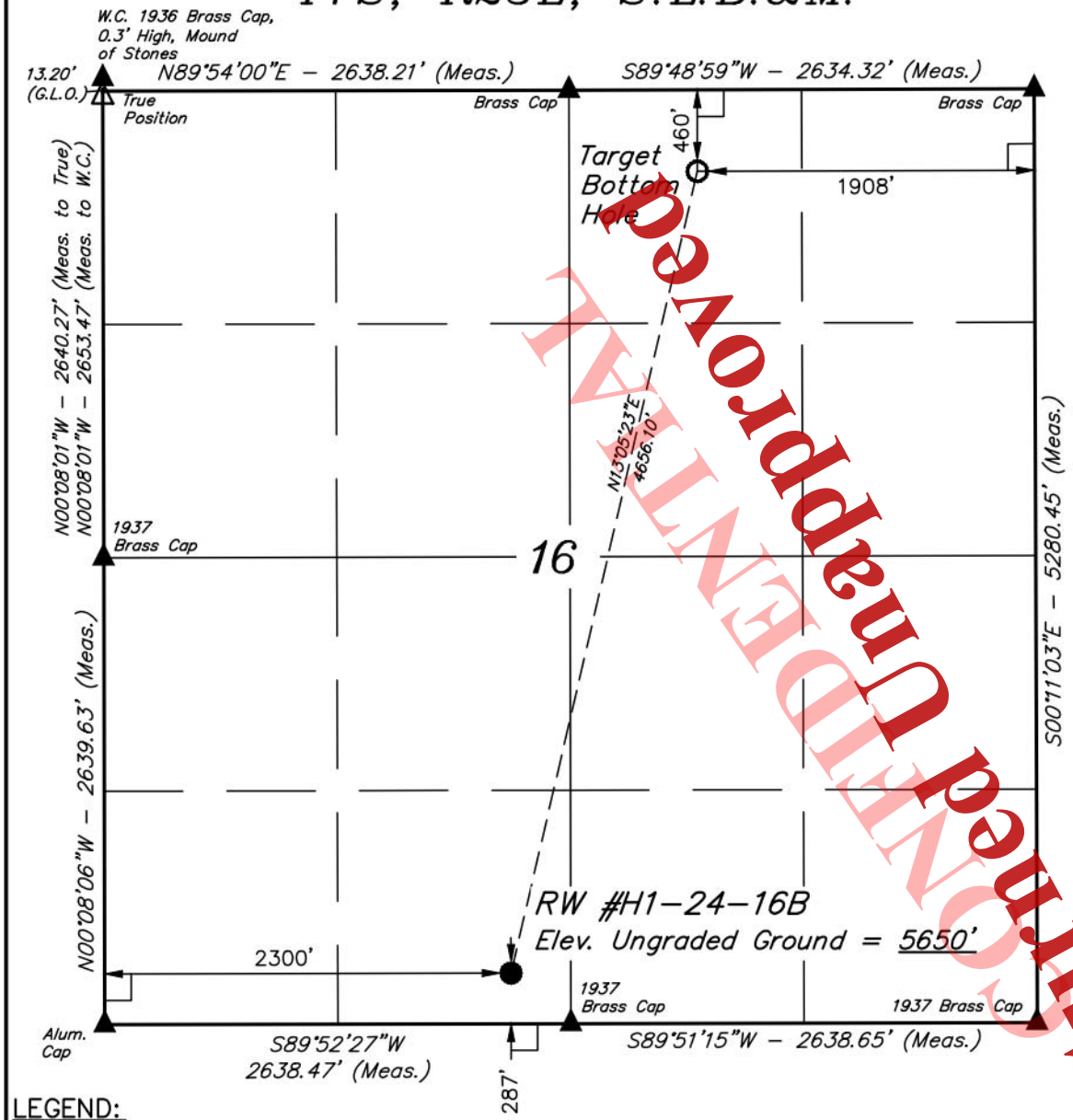
Bureau of Land Management
CONFIDENTIAL
Received: March 06, 2014

T7S, R23E, S.L.B.&M.



QEP ENERGY COMPANY

Well location, RW #H1-24-16B, located as shown in the SE/4 SW/4 of Section 16, T7S, R23E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK 20EAM LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

Bureau of Land Management
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N

1000' 500' 0' 1000'

SCALE

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH

03-05-14

Retyped Unapproved

CONFIDENTIAL

Received: April 02, 2014

Received: March 26, 2014

LEGEND:

- ∟ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground.)

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 40°12'55.81" (40.215503)	LATITUDE = 40°12'11.02" (40.203061)
LONGITUDE = 109°19'46.36" (109.329544)	LONGITUDE = 109°20'00.06" (109.333350)
NAD 27 (TARGET BOTTOM HOLE)	**NAD 27 (SURFACE LOCATION)**
LATITUDE = 40°12'55.94" (40.215539)	LATITUDE = 40°12'11.15" (40.203097)
LONGITUDE = 109°19'43.90" (109.328861)	LONGITUDE = 109°19'57.60" (109.332667)
STATE PLANE NAD 83	**STATE PLANE NAD 83**
N: 7254576.48 E: 2246474.59	N: 7250020.30 E: 2245522.38

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 02-06-14	DATE DRAWN: 02-20-14
PARTY B.H. J.C. S.S.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE QEP ENERGY COMPANY	

QEP Energy Company

Company Name: QEP ENERGY (UT)

Azimuths to True North
Magnetic North: 10.68°

Magnetic Field
Strength: 52183.3snT
Dip Angle: 65.99°
Date: 3/12/2014
Model: IGRF2010

Project: Red Wash - B
Site: RW H1-24-16B
Well: RW H1-24-16B
Wellbore: Original Hole
Design: Plan ver 0

WELL DETAILS: RW H1-24-16B
Original Hole

Ground Level: 5647.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	7250020.300	2245522.380	40.203062	-109.333349	

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well RW H1-24-16B, True North
Vertical (TVD) Reference: RKB @ 5675.00usft (est RKB)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: RKB @ 5675.00usft (est RKB)
Calculation Method: Minimum Curvature

PROJECT DETAILS: Red Wash - B

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Utah Central Zone

System Datum: Mean Sea Level

SECTION DETAILS

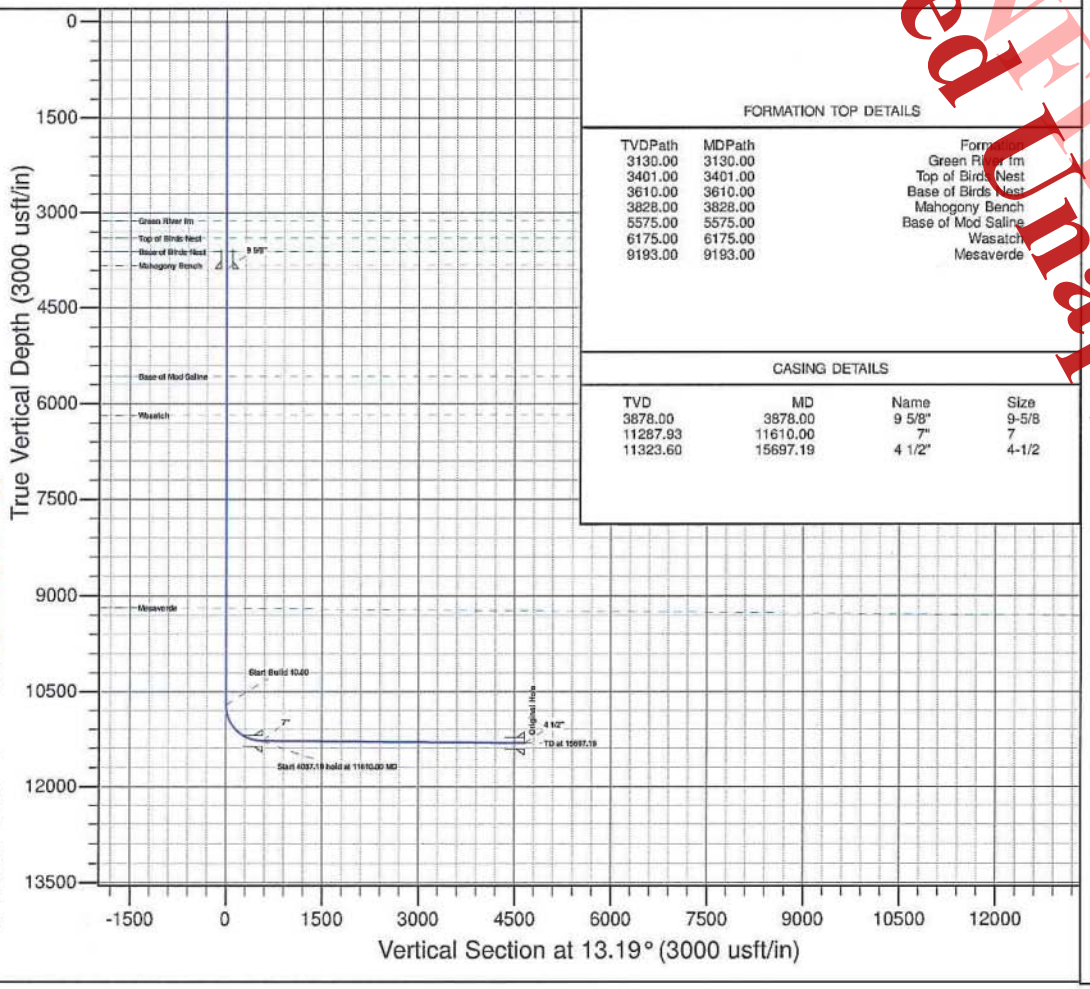
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10715.00	0.00	0.00	10715.00	0.00	0.00	0.00	0.00
11610.00	89.50	13.19	11287.93	552.97	129.62	10.00	567.96
15697.19	89.50	13.19	11323.60	4532.14	1062.37	0.00	4654.99

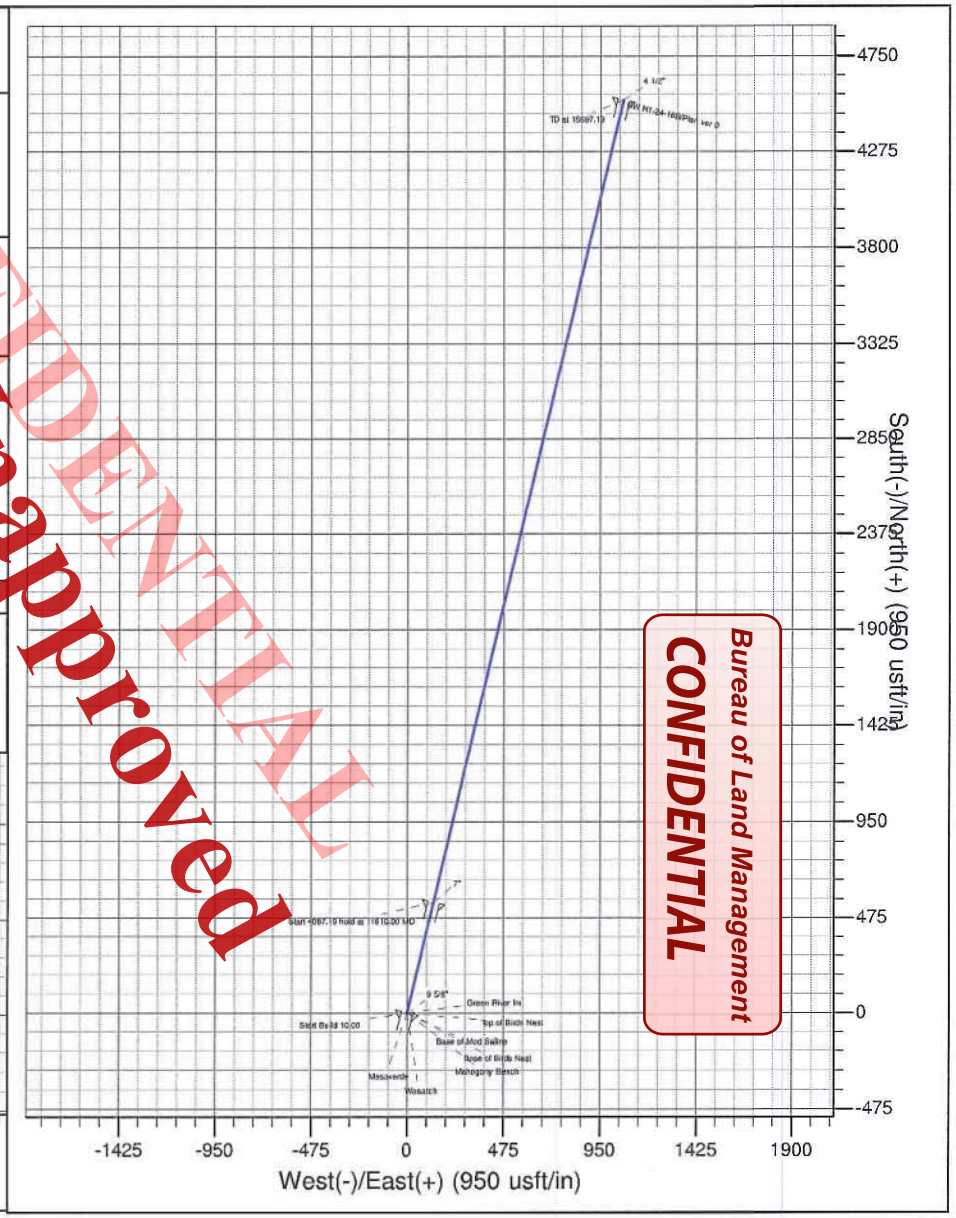
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3130.00	3130.00	Green River Im
3401.00	3401.00	Top of Birds Nest
3610.00	3610.00	Base of Birds Nest
3828.00	3828.00	Mahogony Bench
5575.00	5575.00	Base of Mod Saline
6175.00	6175.00	Wasatch
9193.00	9193.00	Mesaverde

CASING DETAILS

TVD	MD	Name	Size
3878.00	3878.00	9 5/8"	9-5/8
11287.93	11610.00	7"	7
11323.60	15697.19	4 1/2"	4-1/2





Returned Unapproved
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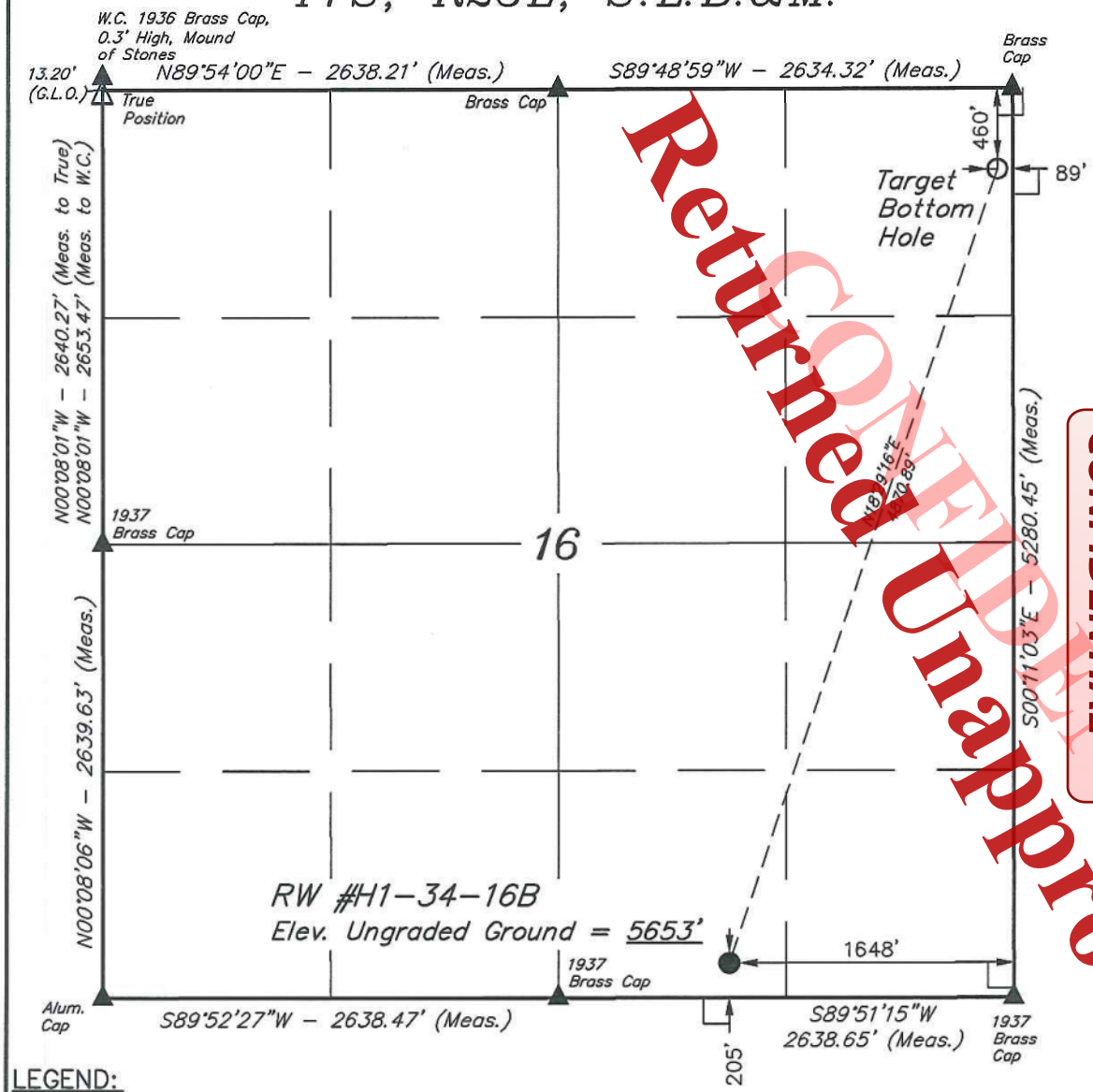
Bureau of Land Management
CONFIDENTIAL
Received March 06, 2014

T7S, R23E, S.L.B.&M.



QEP ENERGY COMPANY

Well location, RW #H1-34-16B, located as shown in the SW 1/4 SE 1/4 of Section 16, T7S, R23E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK 20EAM LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4697 FEET.

BASIS OF BEARINGS

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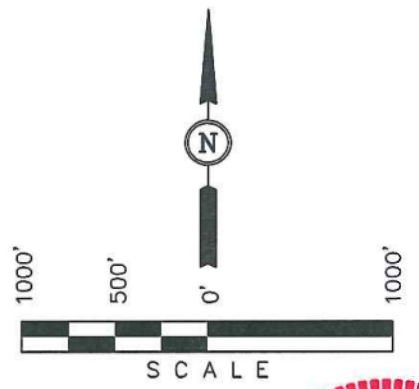


CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH 03-10-14

REGISTERED LAND SURVEYOR NO. 161319 ROBERT L. KAY STATE OF UTAH

Bureau of Land Management
CONFIDENTIAL

Returned Unapproved

CONFIDENTIAL

LEGEND:

- └ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground.)

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 40°12'55.83" (40.215508)	LATITUDE = 40°12'10.22" (40.202839)
LONGITUDE = 109°19'22.92" (109.323033)	LONGITUDE = 109°19'42.93" (109.328592)
NAD 27 (TARGET BOTTOM HOLE)	**NAD 27 (SURFACE LOCATION)**
LATITUDE = 40°12'55.96" (40.215544)	LATITUDE = 40°12'10.35" (40.202875)
LONGITUDE = 109°19'20.46" (109.322350)	LONGITUDE = 109°19'40.48" (109.327911)
STATE PLANE NAD 83	**STATE PLANE NAD 83**
N: 7254623.09 E: 2248292.41	N: 7249971.58 E: 2246852.32

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST – VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 02-07-14	DATE DRAWN: 03-04-14
PARTY B.H. M.P. S.S.	REFERENCES G.L.O. PLAT	
WEATHER COLD	FILE QEP ENERGY COMPANY	

Received March 09, 2014

QEP Energy Company

Company Name: QEP ENERGY (UT)

Azimuths to True North
Magnetic North: 10.68°

Magnetic Field
Strength: 52183.8nT
Dip Angle: 65.99°
Date: 3/12/2014
Model: IGRF2010

Project: Red Wash - B
Site: RW H1-34-16B
Well: RW H1-34-16B
Wellbore: Original Hole
Design: Plan ver.0

WELL DETAILS: RW H1-34-16B
Original Hole

Ground Level: 5653.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	7249971.580	2246852.320	40.202840	-109.328593	

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well RW H1-34-16B, True North
Vertical (TVD) Reference: RKB @ 5683.00usft (SST 88)
Section (VS) Reference: Slot - (0.00N, 0.00E)
Measured Depth Reference: RKB @ 5683.00usft (SST 88)
Calculation Method: Minimum Curvature

PROJECT DETAILS: Red Wash - B

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Utah Central Zone

System Datum: Mean Sea Level

SECTION DETAILS

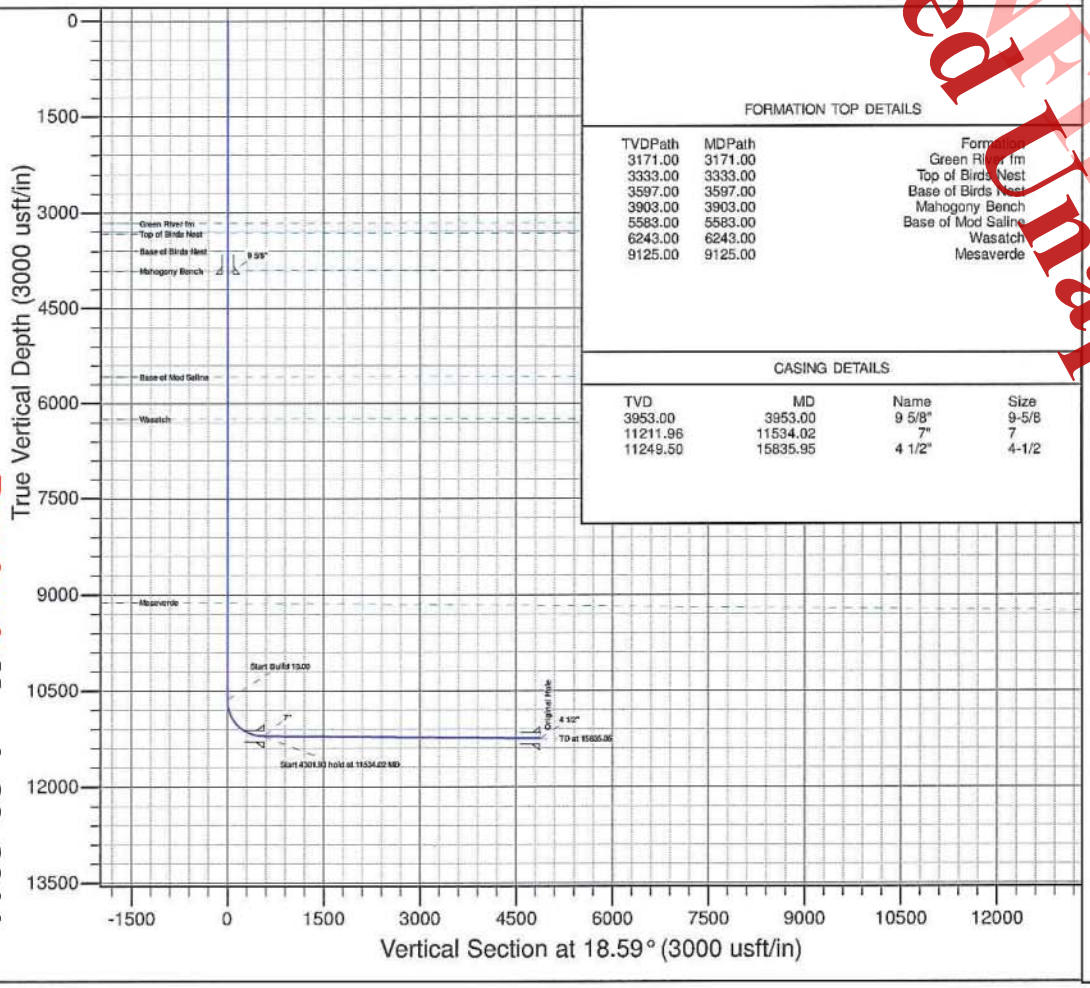
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10639.02	0.00	0.00	10639.02	0.00	0.00	0.00	0.00
11534.02	89.50	18.59	11211.96	538.31	181.09	10.00	567.96
15835.95	89.50	18.59	11249.50	4615.55	1552.70	0.00	4869.73

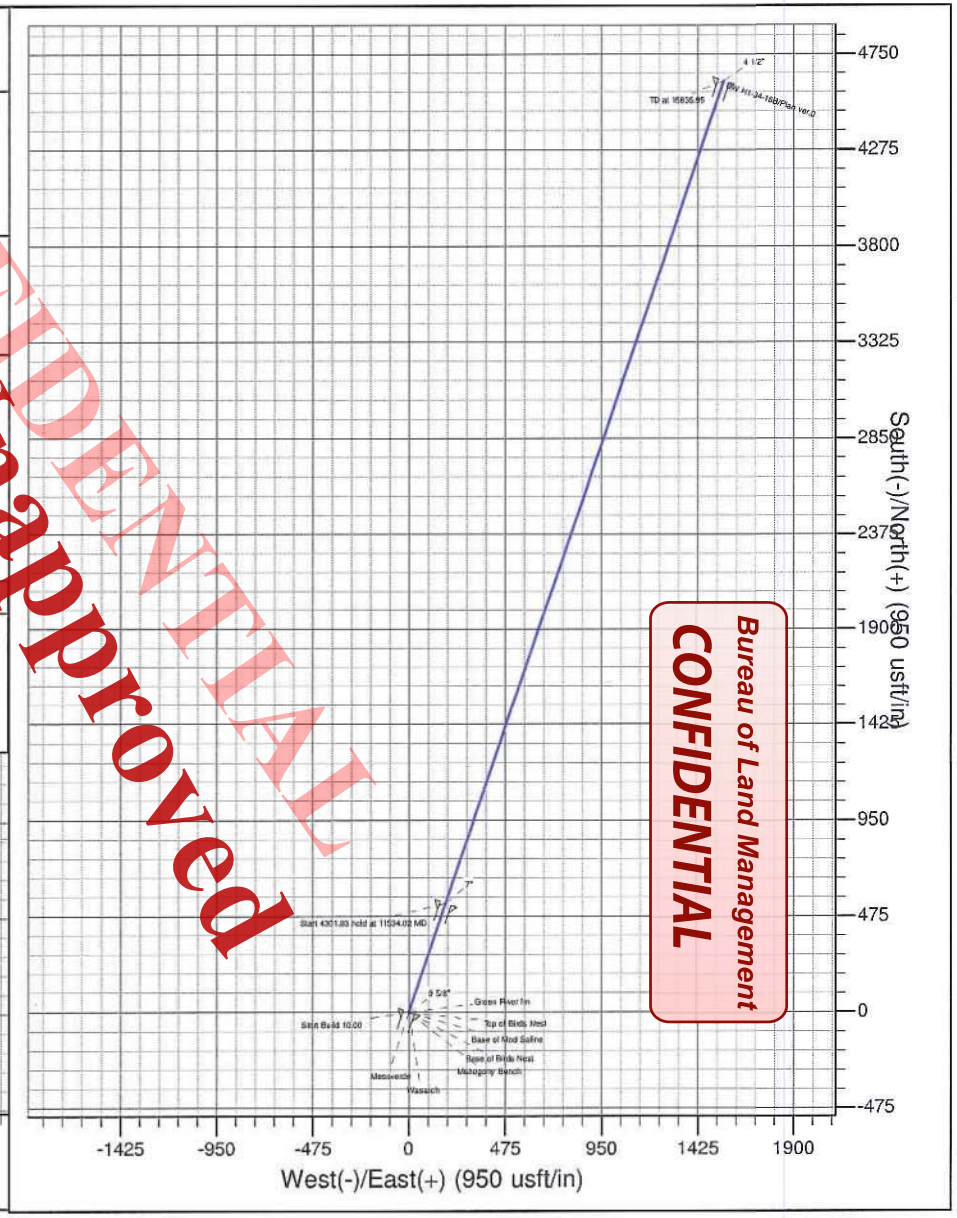
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3171.00	3171.00	Green River fm
3333.00	3333.00	Top of Birds Nest
3597.00	3597.00	Base of Birds Nest
3903.00	3903.00	Mahogony Bench
5583.00	5583.00	Base of Mod Saline
6243.00	6243.00	Wasatch
9125.00	9125.00	Mesaverde

CASING DETAILS

TVD	MD	Name	Size
3953.00	3953.00	9 5/8"	9-5/8
11211.96	11534.02	7"	7
11249.50	15835.95	4 1/2"	4-1/2





Returned Unapproved
CONFIDENTIAL
Bureau of Land Management
CONFIDENTIAL
Received March 06, 2014

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

November 09, 2015

QEP ENERGY COMPANY
11002 East 17500 South
Vernal, Ut 84078

Re: Application for Permit to Drill - UINTAH County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the RW H1-24-16B well, API 43047543590000 that was submitted March 26, 2014 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at (801) 538-5312.

Sincerely,

Diana Mason
Environmental Scientist

Enclosure
cc: Bureau of Land Management, Vernal, Utah

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING