

ASPEN #3-65 15-14 OIL & GAS WELLS PERMIT

SECTION 15, TOWNSHIP 3 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL
MERIDIAN, CITY OF AURORA, ADAMS COUNTY, STATE OF COLORADO
LATITUDE = 39°47'36.83"N, LONGITUDE = 104°39'28.00"W

- GENERAL CONSTRUCTION NOTES:**
- THE SITE PLAN, EQUIPMENT AND INFORMATION SHOWN HEREIN ARE FOR REFERENCE ONLY AND ARE NOT INTENDED TO BE USED FOR CONSTRUCTION. ENGINEERED SWMP DRAWINGS RELATIVE TO THIS SITE WILL BE SUBMITTED AND APPROVED FOLLOWING APPLICABLE CITY OF AURORA STANDARDS AND PROCEDURES.
 - IMAGES SHOWN HERE ARE REPRESENTATIVE OF TYPICAL EQUIPMENT FOR A WELL SITE. ACTUAL EQUIPMENT MAY VARY SLIGHTLY IN SIZE AND/OR COLOR.
 - THE DIMENSIONS AND LAYOUT DEPICTED IN THE SITE PLAN SHOWN ARE REPRESENTATIVE OF A TYPICAL WELL SITE. ACTUAL DIMENSIONS AND LAYOUT MAY CHANGE BASED ON THE VARIABILITY OF THE EQUIPMENT.
 - ESTIMATED SITE ACTIVITY SCHEDULE (TO BEGIN APPROXIMATELY 2 WEEKS AFTER CONSTRUCTION OF PAD SITE AND ACCESS ROADS)
 - DRILLING - 25-30 DAYS (PER WELL HEAD), 24 HOURS/DAY
 - FACILITIES HOOK-UP - 30 DAYS (PER WELL HEAD), 24 HOURS/DAY
 - PRODUCTION - 20+ YEARS
 - THE SURFACE MATERIAL FOR THE ACCESS ROAD AND THE PAD SITE WILL BE GRANULAR MATERIAL.
 - DRILLING OPERATIONS WILL INVOLVE A DRILLING RIG, SUPPORT SERVICES, AND EQUIPMENT. THE DRILL RIGS ARE FITTED WITH DOWNCAST LIGHTING TO FACILITATE NIGHT TIME OPERATION. THERE ARE STRUCTURES OR OCCUPIED AREAS WITHIN 0.5 MILES OF THE DRILL SITE, SO OCULAR IMPACTS MAY BE EXPERIENCED. NOISE MITIGATION MEASURES MAY NEED TO BE USED. THE DRILLING RIG AND ANY SUPPORT EQUIPMENT WILL BE REMOVED AFTER DRILLING OPERATIONS HAVE BEEN FINISHED. AFTER THE DRILLING RIG IS REMOVED, ADDITIONAL EQUIPMENT WILL BE MOVED IN TO PREPARE THE WELL FOR PRODUCTION.
 - WHEN THE DRILLING FOR THE WELL IS COMPLETE, THE RIG AND ASSOCIATED SUPPORT EQUIPMENT WILL BE REMOVED. VEHICLE TRAFFIC TO AND FROM THE SITE OVER THAT PERIOD OF TIME WILL BE PRIMARILY PASSENGER AND LIGHT TRUCK TRAFFIC, WITH AN OCCASIONAL MAINTENANCE VEHICLE. THE SITE WILL CONTINUE TO BE MAINTAINED UNTIL FINAL ABANDONMENT, WITH WEED AND SNOW REMOVAL, AND ACCESS ROAD MAINTENANCE PERFORMED AS NEEDED.
 - AFTER CLOSURE OF THE WELL, THE APPLICANT WILL RECONTOUR, RECLAIM AND RESEED THE WELL PAD.

- BEST MANAGEMENT PRACTICES**
THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE OBSERVED DURING CONOCOPHILLIPS OPERATIONS WITHIN THE CITY OF AURORA.
- A CLOSED LOOP SYSTEM WILL BE USED INSTEAD OF OPEN DRILLING PITS.
 - BERMS OR OTHER SECONDARY CONTAINMENT DEVICES SHALL BE CONSTRUCTED AROUND CRUDE OIL, CONDENSATE, AND PRODUCED WATER STORAGE TANKS SO THAT THEY WILL CONTAIN 110% OF THE LARGEST SINGLE TANK.
 - CONOCOPHILLIPS IS WORKING WITH CITY OF AURORA OFFICIALS ON A WATER USE AGREEMENT THAT WILL SECURE WATER FOR DRILLING AND COMPLETION OPERATIONS FOR WELLS WITHIN THE CITY OF AURORA BOUNDARIES. A 3RD PARTY WATER PROVIDER WILL BE CONTRACTED TO MANAGE THE TRANSPORTATION OF THE WATER TO THE DRILL SITES. WHEN FEASIBLE, WATER WILL BE DELIVERED TO THE SITE VIA TEMPORARY ABOVE GROUND WATER LINES. THE ROUTE OF THE TEMPORARY WATER LINES WILL BE DETERMINED PRIOR TO THE START OF DRILLING OPERATIONS AND IS CONTINGENT ON THE WATER PROVIDER'S ABILITY TO SECURE ALL NECESSARY RIGHT-OF-WAY ACCESS AND PERMITS. IF A TEMPORARY WATER LINE CANNOT BE UTILIZED, WATER WILL BE DELIVERED TO THE SITE VIA TANKER TRUCK. WATER OFTAKE FROM ANY WATER SOURCE PROVIDED BY THE CITY OF AURORA WILL BE COORDINATED WITH THE APPROPRIATE OFFICIALS AT THE CITY OF AURORA.
 - ALL OPERATIONS AREAS SHALL BE ENCLOSED WITH A BARBED WIRE FIELD FENCE TO RESTRICT WILDLIFE AND/OR LIVESTOCK FROM ENTERING THE LOCATION.
 - CONOCOPHILLIPS WILL USE DELINEATED HAUL ROUTES TO MINIMIZE TRAFFIC AROUND MORE DENSELY POPULATED AREAS AND MINIMIZE DAMAGE TO CITY ROADS.
 - PRODUCED WATER WILL BE DISPOSED OF AT A COGCC APPROVED SALT WATER DISPOSAL WELL, OUTSIDE THE CITY OF AURORA.
 - COMBUSTORS WILL BE USED TO DESTROY FUGITIVE EMISSIONS. VAPOR RECOVERY UNIT WILL BE USED IN CONJUNCTION WITH A VAPOR RECOVERY TOWER. THE VAPOR RECOVERY TOWER PREVENTS THE POTENTIAL OF OXYGEN GETTING INTO THE VAPOR RECOVERY UNIT CREATING UNSELLABLE GAS OR A POTENTIAL EXPLOSIVE HAZARD, ALONG WITH OTHER BENEFITS. EMISSIONS TESTS WILL BE PERFORMED ON A COMPLETED FACILITY AFTER THE WELL IS IN PRODUCTION.
 - BASELINE AND SUBSEQUENT WATER QUALITY TESTING WILL BE PERFORMED IN ACCORDANCE WITH COGCC RULE 609.

- STRUCTURAL BEST MANAGEMENT PRACTICES**
- REINFORCED ROCK BERMS (RBI) AND (RRC) - REINFORCED ROCK BERMS (RRC) SHALL BE UTILIZED IMMEDIATELY UPSTREAM OF THE CULVERTS. REINFORCED ROCK BERMS (RBI) SHALL BE PLACED INTERMITTENTLY ALONG THE FLOWLINE OF THE ROADSIDE DITCHES. THE RBBS WILL BE PLACED IN THE INTERIM PHASE WHILE THE RRCs WILL BE PLACED IN THE INITIAL AND INTERIM PHASES PER THE SWMP PLANS.

- STABILIZED STAGING AREA (SSA) - THE STABILIZED STAGING AREA SHALL BE USED FOR EQUIPMENT STORAGE, PARKING, A LOADING/UNLOADING ZONE, PORTABLE TOILETS, CONSTRUCTION TRAILER, WASTE COLLECTION, AND MATERIAL STOCKPILE AND STORAGE. THE STABILIZED STAGING AREA WILL ESSENTIALLY BE THE PERIMETER OF THE PAD SITE LOCATION.
- SEDIMENT BASIN (SB) - WHERE THE TRIBUTARY DISTURBED AREA IS GREATER THAN 1 ACRE, A SEDIMENT BASIN WILL BE PLANNED FOR THE WELL SITE AT THE LOW POINT OF THE PAD. IT WILL BE IMPLEMENTED AT THE DOWNSTREAM TERMINATION OF THE DIVERSION DITCHES. THE BASIN WILL CONTAIN SILT FROM THE UPSTREAM CUT AND FILL SLOPES AROUND THE DRILL PAD SITE. PERIODIC MAINTENANCE OF THE POND MAY BE NECESSARY TO REMOVE ACCUMULATED SILT AND DEBRIS. SEDIMENT BASINS SHALL BE INSTALLED BEFORE THE PAD SITE GRADING BEGINS.
- SEDIMENT TRAP (ST) - WHERE THE TRIBUTARY DISTURBED AREA IS LESS THAN 1 ACRE, A SEDIMENT TRAP WILL BE PLANNED FOR THE WELL SITE AT THE LOW POINT OF THE PAD. IT MAY BE IMPLEMENTED AT THE DOWNSTREAM TERMINATION OF THE DIVERSION DITCHES. THE TRAP WILL CONTAIN SILT FROM THE UPSTREAM FILL SLOPES AROUND THE PAD SITE. PERIODIC MAINTENANCE OF TRAPS MAY BE NECESSARY TO REMOVE ACCUMULATED SILT AND DEBRIS. SEDIMENT TRAPS SHALL BE INSTALLED BEFORE THE PAD SITE GRADING BEGINS.

- DIVERSION DITCHES (DD) - UNLINED DIVERSION DITCHES WILL BE CONSTRUCTED AT THE TOE OF THE CUT AND FILL SLOPES ALONG THE BOUNDARIES OF THE PAD SITE. THESE DITCHES WILL CAPTURE SEDIMENT LAIDEN RUNOFF FROM THE SLOPES AND CHANNEL IT INTO SEDIMENT BASINS AND/OR TRAPS. IN THE FILL SLOPE APPLICATION, THE MATERIAL EXCAVATED FOR THE DITCH SHALL BE COMPACTED AND BERMED ON THE DOWNHILL SIDE FOR AN ADDITIONAL LAYER OF PROTECTION. DIVERSION DITCHES SHALL BE INSTALLED BEFORE GRADING WORK BEGINS ON THE FILL SLOPES AND AS SOON AS THE PAD SITE GRADING IS COMPLETE ON THE CUT SLOPES.

- SEEDING AND MULCHING (SM) - CUT AND FILL SLOPES ADJACENT TO THE PAD SITE AND ACCESS ROAD SWALES SHALL BE STABILIZED WITH SM. IT SHALL BE APPLIED AFTER GRADING IS COMPLETE IN THE FINAL PHASE. IF THE SEEDING AND MULCHING APPLICATION DOES NOT PROVIDE ADEQUATE STABILIZATION FOR THE AREA WHERE SLOPES EXCEED 4:1, THEN MORE ROBUST BMP'S SHALL BE UTILIZED.
- SEDIMENT CONTROL LOG (SCL) - 12" DIAMETER SEDIMENT CONTROL LOGS SHALL BE USED ON THE DOWNSTREAM PERIMETER OF THE SPOIL AND TOPSOIL STOCKPILES PER MANUFACTURER SPECIFICATIONS. SEDIMENT CONTROL LOGS SHALL BE INSTALLED IN THE INTERIM PHASE ONCE STOCKPILES HAVE BEEN CREATED.
- VEHICLE TRACKING CONTROL (VTC) - IN LIEU OF A VTC, THE CONTRACTOR SHALL INSTALL AN ASPHALT APRON WHERE A PROPOSED ACCESS ROAD INTERSECTS A PAVED PUBLIC ROADWAY. IF THE PUBLIC ROADWAY IS GRAVEL, A VTC IS NOT NECESSARY. VTC OR ASPHALT APRON SHALL BE INSTALLED IN THE INITIAL PHASE BEFORE THE PAD SITE GRADING BEGINS.

- RIPRAP - TYPE-M RIPRAP SHALL BE INSTALLED DOWNSTREAM OF ALL CULVERTS FOR A WIDTH OF 4 TIMES THE CULVERT DIAMETER AND A LENGTH OF 4 TIMES THE CULVERT DIAMETER. RIPRAP SHALL BE INSTALLED IN THE INTERIM PHASE, FOLLOWING CULVERT INSTALLATION.
- EROSION CONTROL BLANKET (ECB) - STEEP SLOPES SHALL BE PROTECTED WITH STRAW COCONUT BLANKETS WHERE SEEDING AND MULCHING APPLICATION IS NOT EFFECTIVE. BLANKET SHALL BE INSTALLED WITH SEEDING DURING THE FINAL PHASE.

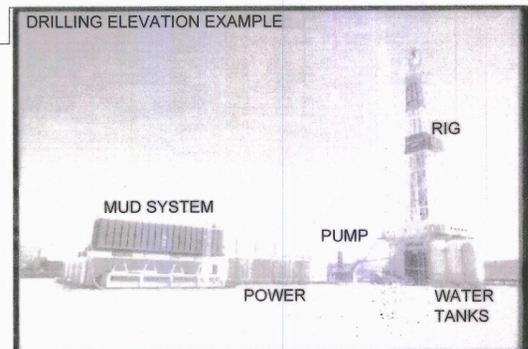
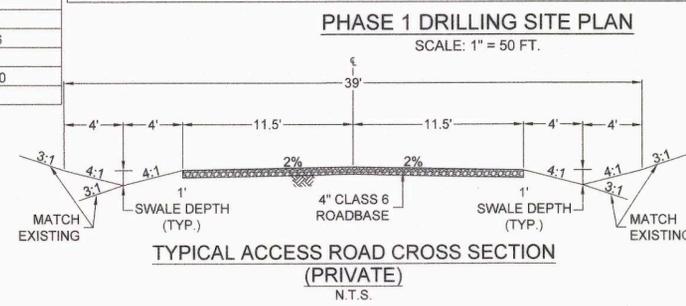
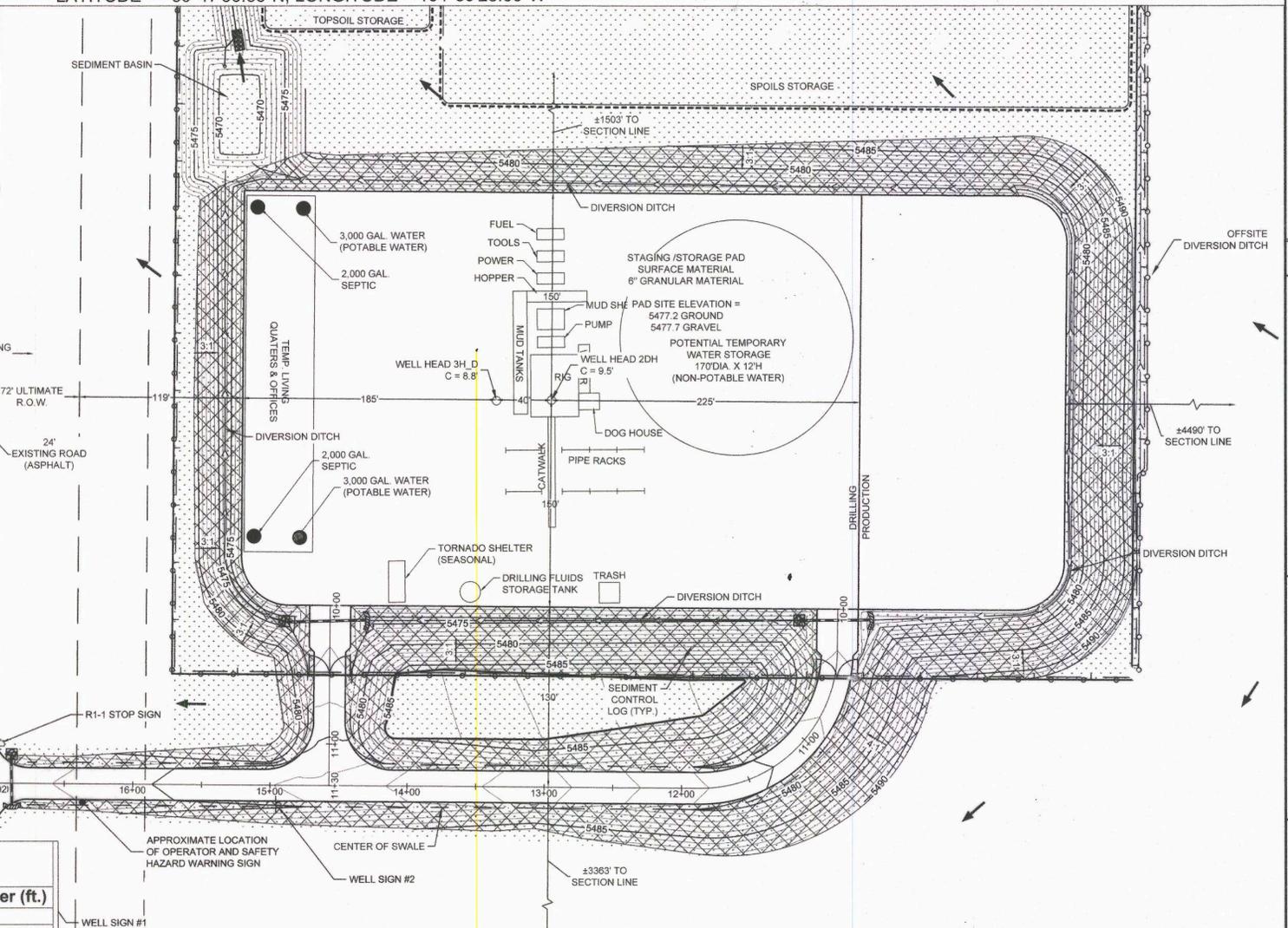
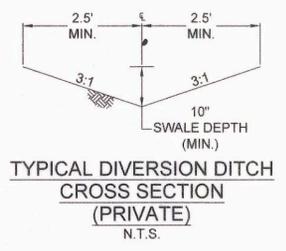
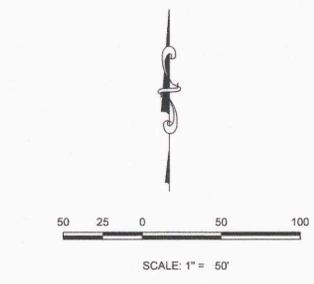
Drilling Equipment Representative Dimension Table

Item	Length (ft.)	Width (ft.)	Height (ft.)	Diameter (ft.)
Hopper	51	12	12	-
Mud Shed	33	14	11	-
Mud Tanks	45	11	11	-
Drilling Rig	45	35	100	-
Pump	33	14	11	-
Power	30	11	11	-
Tools	43	12	11	-
Fuel	30	11	10	-
Dog House	29	10	9	-
Catwalk	58	9	8	-
Pipe Rack (long)	60	-	-	-
Pipe Rack (short)	26	-	-	-
Water Storage Tank	-	-	20	16
Trash Dumpster	15	15	6	-
Temp. Water Storage	-	-	12	170
Temp. Living	350	50	14	-

LIFE SAFETY NOTES:

503.2.1 DIMENSIONS, FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 23 FEET, EXCEPT FOR APPROVED SECURITY GATES, IN ACCORDANCE WITH SECTION 503.6, AND AN UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 13 FEET, 6 INCHES.

503.2.3 SURFACE FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNATED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS (85,000 lbs) AND SHALL BE SURFACED SO AS TO PROVIDE ALL WEATHER DRIVING CAPABILITIES. PER NO SPEED REDUCING DEVICES OR TRAFFIC CALMING FEATURES OF ANY TYPE, THAT ALTER THE ELEVATION OF THE ROADWAY, INCLUDING BY NOT LIMITED TO SPEED BUMPS, SHALL BE PERMITTED ON ANY FIRE APPARATUS ACCESS ROAD.



10333 E. Dry Creek Rd.
Suite 240
Englewood, CO 80112
Tel: (720) 482-9226
Fax: (720) 482-9546

CONOCOPHILLIPS COMPANY
ATTN: MAXWELL BURR
34801 E. QUINCY AVE.
WATKINS, CO 80137
PHONE: (303) 268-3711

ASPEN #3-65 15-14 OIL AND GAS WELLS
SOUTHEAST OF 56TH AVE AND
MONAGHAN ROAD

PHASE 1 DRILLING SITE PLAN

SCALE: AS SHOWN
DRAWN BY: KID
CHECKED BY: MEL
DATE: 7/21/2017 8:13, 02/01/688

CALL 811
TWO WORKING DAYS
BEFORE YOU DIG
1-800-922-1987

SHEET NUMBER **2**

UNCC
NATIONAL UNDERGROUND UTILITY COUNCIL

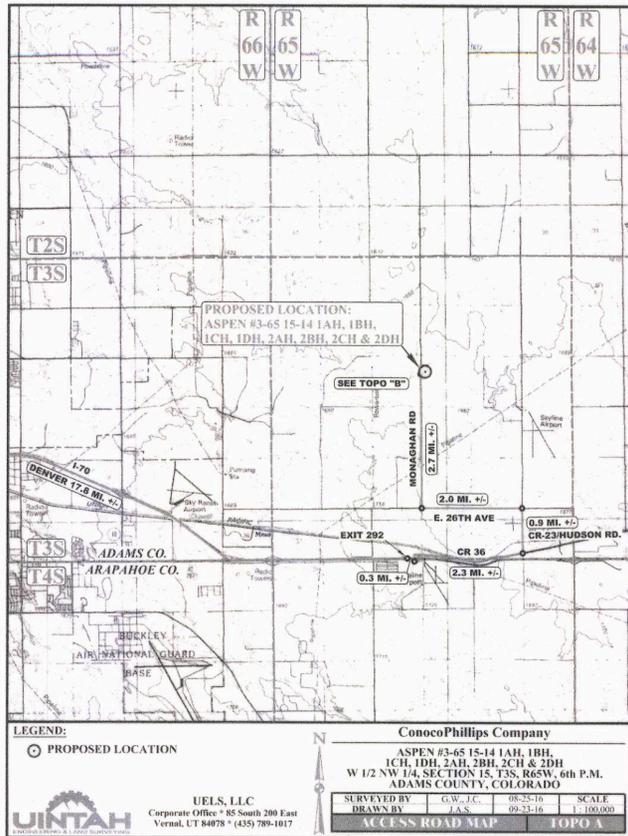
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LATITUDE = 39°47'36.83"N, LONGITUDE = 104°39'28.00"W

POWDER RIVER STYLE SWING GATE
WITH APPROVED KNOX HARDWARE
ACCESSIBLE FROM BOTH SIDES OF GATES



6" CLEARANCE BETWEEN BOTTOM
OF GATE AND GRAVEL ROAD ACROSS
FULL WIDTH OF GATE



HAUL ROUTE

PRODUCTION EQUIPMENT REPRESENTATIVE DIMENSION TABLE

ITEM	LENGTH (FT.)	WIDTH (FT.)	HEIGHT (FT.)	DIAMETER (FT.)
STORAGE TANKS	25	10	20	12.5
TRANSFORMER	-	-	-	-
PUMPING UNIT	31.75	8.3	34	-
COMBUSTOR	6	6	25	4
FLARE	5	5	30	0.25
PANEL RACK	25	10	10.83	-
SOLAR PANEL STAND	5.17	5.17	5	-
KNOCK OUT (KO) - 1000	8	5	4.5	-
KNOCK OUT (KO) - 1102	8	5	4.5	-
RECYCLE PUMP	2.25	2.75	-	-
METER RUN	11.6	4	7.25	-
POTENTIAL COMPRESSOR EQUIPMENT (FOOTPRINT)	100	50	-	-
PRODUCTION UNIT	20	5	15	4
VAPOR RECOVERY TOWER	-	-	30	3
VAPOR RECOVERY UNIT	6	5	6	-

NOTE:
1) PRODUCTION SITE PLAN LAYOUT IS FOR GRAPHICAL PURPOSES ONLY.
ACTUAL SITE PLAN MAY VARY.
2) TANK LINERS ARE PROPOSED UNDER THE TANK BATTERY, AS REGULATED
BY THE COLORADO OIL AND GAS CONSERVATION COMMISSION (COGCC).

COGCC STANDARD 210

WELL ENTRY SIGN ELEVATION EXAMPLE #1



ENTRY SIGN & SAFETY HAZARD WARNINGS
TO BE PLACED AT WELL ACCESS
ROAD INTERSECTION WITH PUBLIC ROAD.

PRODUCTION ELEVATION EXAMPLE



PUMP JACK

WELL ENTRY SIGN ELEVATION EXAMPLE #2



ENTRY SIGN TO BE PLACED AT ACCESS ROAD
ENTRY TO PAD SITE.

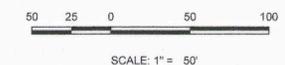
4' STEEL
T-POSTS



WILDLIFE FENCE

PRODUCTION SITE PLAN

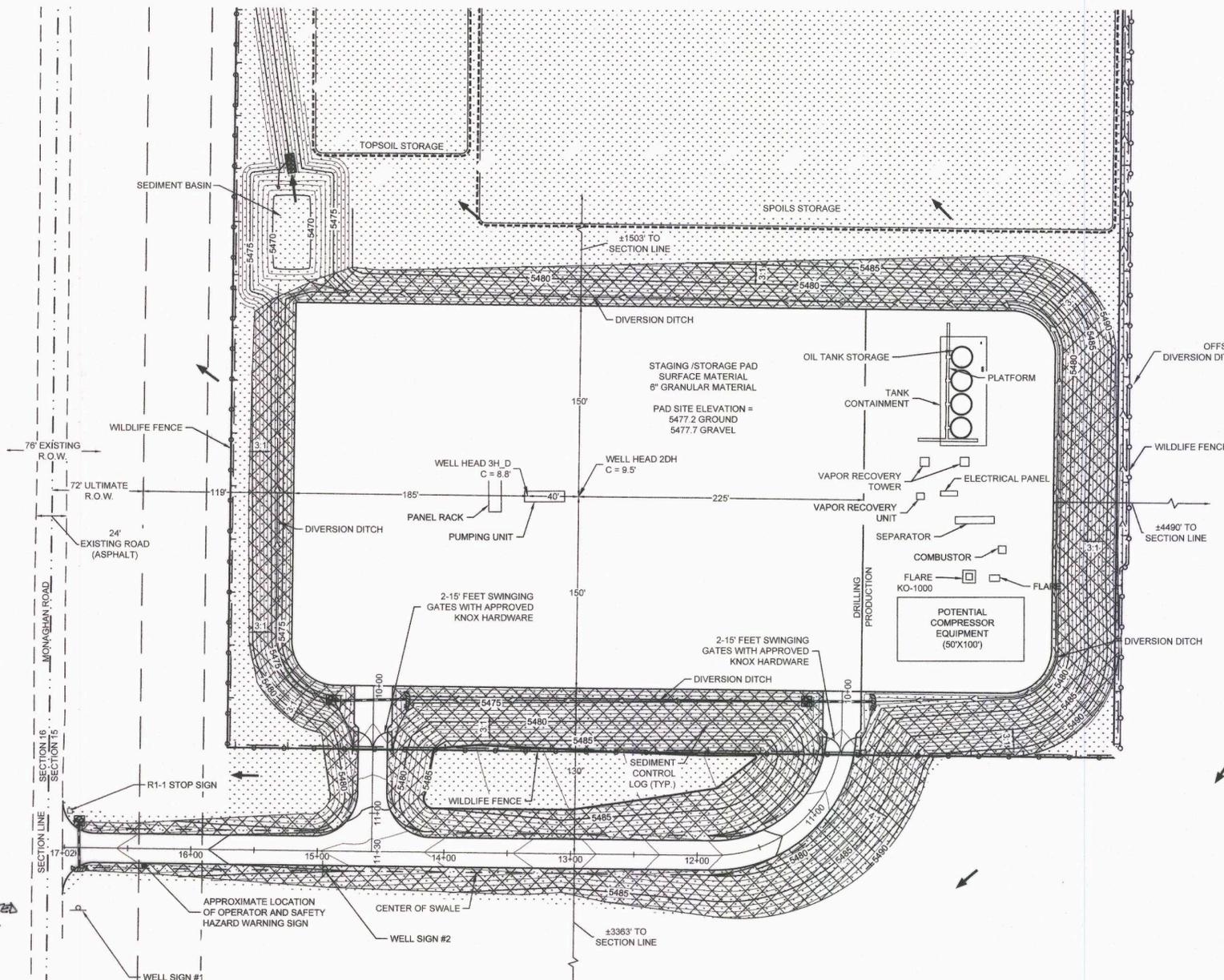
SCALE: 1" = 50 FT.



SCALE: 1" = 50'

NOTE:
1. SURFACING MATERIAL SUSTAINING 160,000
POUND IMPOSED WEIGHT LIMIT ON SITE ACCESS
ROAD SHALL ALSO BE DISTRIBUTED THROUGHOUT
THE ENTIRE FENCED SITE, PROVIDING EMERGENCY
APPARATUS ACCESS TO ALL PROPOSED
STRUCTURES AND FACILITIES WITHIN THE SITE
2. "ASPEN #3-65 15-14" ADDRESS SIGN WILL BE
LOCATED AT ACCESS ROAD ENTRANCE, AND
ADJACENT TO GATE AT FENCE WELL SITE.

NOTES:
1. THE FOLLOWING 24/7 PHONE NUMBER WILL BE INCLUDED ON THE WELL
ENTRY SIGN AND WELL HEAD SIGN SHOWN HEREIN: (877) 534-4117.
2. OPERATOR NAME (CONOCOPHILLIPS COMPANY) SHALL BE INCLUDED ON
SIGN AT ENTRY LOCATION TO WELL PAD
3. WELL SIGNS WILL BE 2'x3' IN SIZE, TYPICALLY CONSTRUCTED OUT OF
METAL.



10333 E. Dry Creek Rd. Suite 240 Englewood, CO 80112 ATTN: MAXWELL BLAIR 3401 E. QUINCY AVE ENGLEWOOD, CO 80110 PHONE: (303) 288-3711	NO.	REVISIONS	DATE	APPR.	DATE
CVL CON SULTANTS CIVIL ENGINEERING LAND SURVEYING					
CONOCOPHILLIPS COMPANY 4401 E. QUINCY AVE ENGLEWOOD, CO 80110 PHONE: (303) 288-3711					
ASPEN #3-65 15-14 OIL AND GAS WELLS SOUTHEAST OF 56TH AVE AND MONAGHAN ROAD					
SCALE: AS SHOWN	FILE NO. 8-13-0201689				
DRAWN BY: KID	CHECKED BY: MEL	DATE: 7/2/2017			
SHEET NUMBER 3					

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