

Well Name: NORTHEAST BLANCO
UNIT 604

Well Location: T31N / R7W / SEC 13 /
SWNW / 36.9014941 / -107.5294808

County or Parish/State: SAN
JUAN / NM

Well Number: 7H

Type of Well: CONVENTIONAL GAS
WELL

Allottee or Tribe Name:

Lease Number: NMNM03358

Unit or CA Name: NEBU--ST

Unit or CA Number:
NMNM78402X

US Well Number: 3004538356

Operator: SIMCOE LLC

Notice of Intent

Sundry ID: 2899577

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/09/2026

Time Sundry Submitted: 03:56

Date proposed operation will begin: 04/01/2026

Procedure Description: SIMCOE is proposing to alter the Northeast Blanco Unit 604 7H wellbore. The new surface hole location (SHL) will remain within the permitted well pad, and the wellbore will stay within the same dedicated acreage and existing leases.

NOI Attachments

Procedure Description

NEBU_604_7H_Drilling_Prog_revised_3_16_2026__002__20260317083940.pdf

NEBU_604_7H_Form_C_102__R02_Signed__20260317083324.pdf

NEBU_604_7H_Plan_2_AC_Report_20260309155008.pdf

NEBU_604_7H_Plan_2_20260309154848.pdf

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Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: CALE REDPATH

Signed on: MAR 17, 2026 09:00 AM

Name: SIMCOE LLC

Title: Regulatory Analyst

Street Address: 1199 MAIN AVE SUITE 101

City: DURANGO **State:** CO

Phone: (970) 759-8799

Email address: CALE.REDPATH@MACHNR.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: DAVE J MANKIEWICZ

BLM POC Title: AFM-Minerals

BLM POC Phone: 5055647761

BLM POC Email Address: DMANKIEW@BLM.GOV

Disposition: Approved

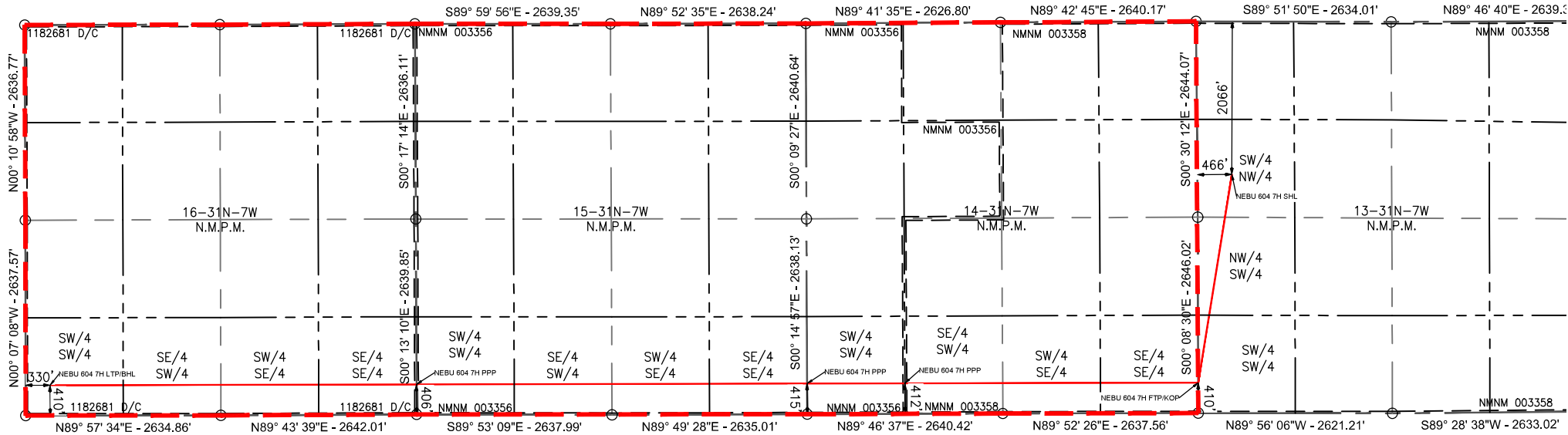
Disposition Date: 03/19/2026

Signature: Dave J Mankiewicz

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



U.S.G.L.O. SUBDIVISIONS APRIL 13, 1914 through APRIL 28, 1914,
ACCEPTED NOVEMBER 24, 1917.

BEARINGS BASED ON
GRID NORTH - NEW MEXICO SPC,
NAD-83, WEST



SCALE: 1" = 2000'



LEGEND

- WELL BORE
- WELL PAD
- ACCESS ROAD
- FOUND 1914 USGLO BRASS CAP
- SECTION LINE
- 1/4 SEC LINE
- BLM MINERAL TRACT BOUNDARY

NORTHEAST BLANCO UNIT 604 7H	Northing	Easting	Latitude	Longitude
NEBU 604 7H SHL Entry: FED NMNM 003358 2066' FNL 466' FWL 13-31N7W	2147469.7064	2811874.5369	N036.901105	W107.529684
NEBU 604 7H FTP/KOP: FED NMNM 003358 410' FSL 0' FEL 14-31N7W	2144656.9076	2811419.5756	N036.893383	W107.531271
NEBU 604 7H PPP: FED NMNM 003356 412' FSL 1320' FWL 14-31N7W	2144648.4516	2807460.6829	N036.893393	W107.544809
NEBU 604 7H PPP: FED NMNM 003356 415' FSL 0' FEL 15-31N7W	2144645.6325	2806140.8420	N036.893396	W107.549323
NEBU 604 7H PPP: FED 1182681 D/C 406' FSL 0' FEL 16-31N7W	2144634.3702	2800868.1094	N036.893407	W107.567354
NEBU 604 7H LTP/BHL EXIT: FED 1182681 D/C 410' FSL 330' FWL 16-31N7W	2144623.8056	2795921.9792	N036.893415	W107.584269

GENERAL NOTES:

- DATUM BASED ON NEW MEXICO STATE PLANE COORDINATE SYSTEM, NAD 83, NAVD 88, ELEVATIONS MSL, DERIVED FROM GPS OBSERVATION.
- THIS EXHIBIT DOES NOT GUARANTEE TITLE OR OWNERSHIP.
- THIS IS NOT A BOUNDARY SURVEY.
- THIS EXHIBIT DOES NOT COMPLY WITH THE NEW MEXICO MINIMUM STANDARDS FOR LAND BOUNDARY SURVEYS

REVISION #	DATE	DESCRIPTION	BY
02	3/16/2026	ADDED ACREAGE BOXES	MVA



Attachment to Application for Permit to Drill

Drilling Program

Simcoe LLC / Mach Natural Resources

1199 Main Avenue
Suite 101
Durango, CO 81301

Northeast Blanco Unit 604 7H

API: 30-045-38356

Mancos Shale - Horizontal Development Well

SURFACE HOLE LOCATION: 2066' FNL & 466' FWL

Section 13, T31N, R7W

San Juan County, NM

LAT: N36.901105° N, LONG: W107.529684° W - NAD 83

GL Elevation: 6501', KB: 27.5'

PROPOSED FIRST TAKE POINT: 410' FSL & O' FEL

Section 14, T31N, R7W

San Juan County, NM

LAT: 36.893383° N, LONG: = 107.531271° W – NAD 83

PROPOSED BOTTOM HOLE LOCATION: 410' FSL & 330' FWL

Section 16, T31N, R7W

San Juan County, NM

LAT: 36.893415° N, LONG: 107.584269° W – NAD 83

Drilling program written in compliance with onshore Oil and Gas Order No. 1 (III.D.3, effective May 2007) and Onshore Order No. 2 Dated November 18, 1988



Section 1: Geotechnical Information

Formation Tops	TVD	MD	COMMENTS	BHP (PSI/FT)
Animas/Nacimiento	28.5	28.5	Wet/aquifer	0.43
Ojo Alamo	2,389.5	2,510.1	Gas & water-bearing	0.43
Kirtland	2,508.5	2,641.5	Gas & water-bearing	0.07
Fruitland	3,001.5	3,186.0	Wet	0.12
Pictured Cliffs	3,336.5	3,556.0	Gas & water-bearing	0.35
Lewis	3,576.5	3,821.1	Gas & water-bearing	0.35
Cliffhouse	5,093.5	5,496.5	Gas & water-bearing	0.30
Menefee	5,438.5	5,910.7	Gas & water-bearing	0.30
Point Lookout	5,750.5	6,222.1	Gas-bearing	0.43
Mancos	6,173.5	6,689.3	Gas-bearing	0.61
LP (Mancos Lateral)	7,037.0	7,971.6	Gas-bearing	0.61
TD (Mancos Lateral)	6,997.0	23,270.0	Gas-bearing	0.61

DIRECTIONAL PLAN 2 – see attached plan.

Possible Aquifers: Animas/Nacimiento and Ojo Alamo

Oil Shale: None Expected

Oil & Gas: Primary objective is the Mancos formation from 7037' TVD (landing point) to 6997' TVD (TD)

Protection of oil, gas, water, or other mineral-bearing formations: Protection shall be accomplished by setting surface casing below base of possible aquifer(s) and cementing casing to surface.

Potential Hazards:

- H2S Concern: H2S is not anticipated: Crews will wear 4 gas monitors, and an H2S monitor at mud pits.
- Depletion: potential losses in Fruitland Coal and Point Lookout, monitor report in tour book and morning reports.
- Natural Gauges: Gauge any noticeable increases in gas flow. Record all gauges in tour book and morning reports. Prepare and follow trip sheets.
- Geohazards: There are not anticipated geohazards

SECTION 2: BOPE

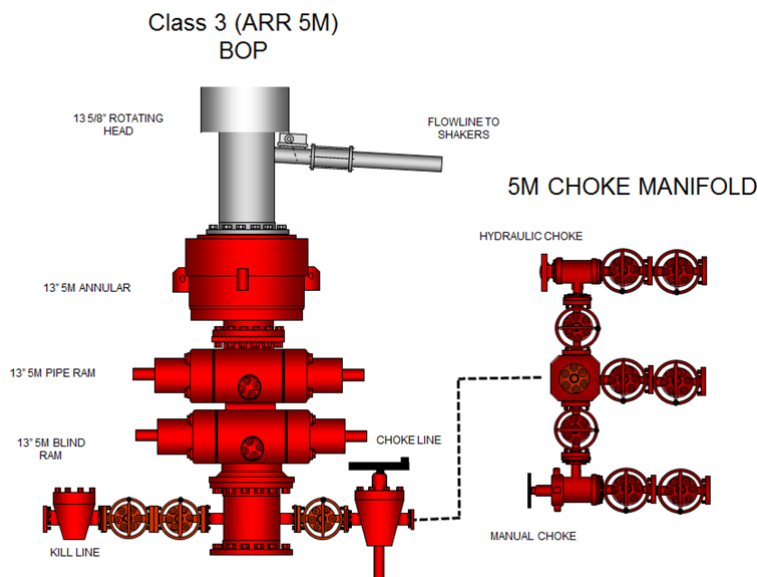


BOP equipment and accessories will meet or exceed BLM requirements outlined in 43 CFR Part 3160.

A 13-5/8" 5M BOPE will be utilized to drill this well. The 13-5/8" BOPE will be **tested 250 psi (Low) for 5 minutes** and **5000 psi (High) for 10 minutes if isolated by test plug** or **70 percent of internal yield pressure of casing if BOP stack is not isolated from casing**. Pressure test **conductor to 600 psi for 30 min, surface & intermediate casing(s) to 1500 psi for 30 minutes**. Utilize a BOPE Testing with a recording unit to chart and test plug for testing. The Drum Brakes will be tested each tour. All preventers and surface casing will be tested before drilling out of surface casing. BOP equipment will be tested every 30 days, after any repairs are made to the BOP equipment, and after the BOP equipment is subjected to pressure. Annular preventers will be functionally operated at least once per week. Pipe rams will be activated daily, and blind rams shall be activated each trip or at least weekly. The New Mexico Oil & Gas Conservation Commission and the BLM will be notified 24 hours in advance of testing of BOPE. **All Tests and inspections will be recorded, charted and logged with time and results**. The working pressure of all BOPE shall exceed the anticipated surface pressure to which it may be subjected, assuming a partially evacuated hole with a pressure gradient of 0.22 psi/ft.

BOPE	TVD (ft)	BHP Grad (psi/ft)	BHP (psi)	MASP (psi)
13-5/8" 5M BOPE	7037	0.61	4293	2744

$$\begin{aligned}
 \text{BHP} &= \text{TVD} \times \text{BHP Grad} &= & 7037 \times 0.61 &= & 4293 \text{ psi} \\
 \text{MASP} &= \text{BHP} - (\text{TVD} \times 0.22) &= & 4293 - 1548 &= & 2744 \text{ psi} \\
 & &= & 4293 - 1548.14 &= & 2744 \text{ psi} \\
 & & & & & 2750 < 5000 \text{ psig}
 \end{aligned}$$



Section 3: Casing



BIT & CASING PROGRAM (all new casing strings)

TYPE	HOLE SIZE (IN)	CASING (IN)	WEIGHT (LBS/FT)	GRADE	COUPLING	SETTING DEPTH (MD FT)	COMMENTS
Conductor	24 or 26	20	78.60	API 5L	-	0 - 150	Pre-set 20" welded csg w/spud rig Cement circulated to surface.
Surface	17-1/2	13-3/8	54.50	J55	BT&C	0 - 3951	New casing. May be pre-set. Cement circulated to surface. Csg point 130' into Lewis
Intermediate	12-1/4	9-5/8	40.00	P110HC	BT&C	0 - 6939	New casing. Two-stage cement job, circulated to surface. Csg point 250' into Mancos
Production	8-3/4	5-1/2	20.00	P110HC	TCBC-HT	0 - 23270	New casing. Single-stage cement job to overlap previous casing shoe.

Conductor Casing Design - Evacuation/Casing Test (collapse & burst), 100K overpull (tension)

Size (in.)	Weight (lb/ft)	Grade	Connection	Minimum Safety Factors			Yield - Body (lbs)	Yield - Connection (lbs)
				Collapse (psi)	Burst (psi)	Tension (lbs)		
Conductor	20	78.6	API-5L	Welded	320	1,420	971,000	971,000
					80% of Burst = 1,136			

Casing Depth, TVD (ft)	Mud Wt In (ppg)	Mud Wt Out (ppg)	Pressure Inside (psi)	Pressure Outside (psi)	Safety Factor	
Collapse	150	0	8.33	0	65	4.93
Burst	150	8.33	0	600	0	2.14

Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)		
Tension (Pipe Body)	150	9.00	11,790	10,170	110,170	8.81
Tension (Connection)	150	9.00	11,790	10,170	110,170	8.81

NOTE: BF = 1-((MW)/65.5)



Surface Casing Design - Evacuation/Casing Test (collapse & burst), 100K overpull (tension)

	Size (in.)	Weight (lb/ft)	Grade	Connection	Minimum Safety Factors			Yield - Body (lbs)	Yield - Connection (lbs)
					Collapse (psi)	Burst (psi)	Tension (lbs)		
					1.125	1.100	1.400		
Surface	13.375	54.50	J55	BTC	1,130	2,730	850,000	909,000	
					80% of Burst = 2,184				
	Casing Depth, TVD (ft)	Mud Wt In (ppg)	Mud Wt Out (ppg)	Pressure Inside (psi)	Pressure Outside (psi)	Safety Factor			
Collapse	3692	9.00	9.00	864	1728	1.31	50% Casing volume with 9.0 ppg mud system		
Burst	3692	9.00	9.00	3228	1728	1.82	1500 psi casing test		
	Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)				
Tension (Pipe Body)	3692	9.00	201,191	173,546	273,546	3.11			
Tension (Connection)	3692	9.00	201,191	173,546	273,546	3.32	100K lbs overpull		

NOTE: BF = 1-((MW)/65.5)

Intermediate Casing Design - Evacuation/Casing Test (collapse & burst), 100K overpull (tension)

	Size (in.)	Weight (lb/ft)	Grade	Connection	Minimum Safety Factors			Yield - Body (lbs)	Yield - Connection (lbs)
					Collapse (psi)	Burst (psi)	Tension (lbs)		
					1.125	1.100	1.400		
Intermediate	9.625	40.00	P110HC	BTC	4,230	7,910	1,260,000	1,265,000	
					80% of Burst = 6,328				
	Casing Depth, TVD (ft)	Mud Wt In (ppg)	Mud Wt Out (ppg)	Pressure Inside (psi)	Pressure Outside (psi)	Safety Factor			
Collapse	6386	0	10.00	0	3321	1.27	Full evacuation volume with 10.0 ppg mud in annulus		
Burst	6386	10.00	0	1500	0	1.64	1500 psi casing test		
	Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)				
Tension (Pipe Body)	6386	10.00	255,454	216,454	316,454	3.98			
Tension (Connection)	6386	10.00	255,454	216,454	316,454	4.00	100K lbs overpull		



Production Casing Design - Evacuation/Casing Test (collapse & burst), 100K overpull (tension)

	Size (in.)	Weight (lb/ft)	Grade	Connection	Minimum Safety Factors			Yield - Body (lbs)	Yield - Connection (lbs)
					Collapse (psi)	Burst (psi)	Tension (lbs)		
					1.125	1.100	1.400		
Production	5.5	20.00	P110HC	TCBC-HT	12,150	12,640	641,000	641,000	
					80% of Burst =			10,112	

	Casing Depth, TVD (ft)	Mud Wt In (ppg)	Mud Wt Out (ppg)	Pressure Inside (psi)	Pressure Outside (psi)	Safety Factor	
Collapse	7037	0	13.30	0	4867	2.50	Full evacuation with 13.3 ppg mud in annulus
Burst	7037	13.30	0	1500	0	1.99	1500 psi casing test

	Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)	
Tension (Pipe Body)	7037	13.30	140,740	112,162	212,162	3.02
Tension (Connection)	7037	13.30	140,740	112,162	212,162	3.02

NOTE: BF = 1 - ((MW)/65.5)

All casing strings will be tested to 0.22 psi/ft of string length or 1500 psi (whichever is greater), but not to exceed 70% of minimum internal yield.

Minimum casing design safety factors:

Collapse – 1.125

Burst – 1.100

Tension – 1.400

Casing centralization: Run centralizers to meet requirements of 43 CFR 3160 Onshore order 2, Drilling Operations. 13-3/8 Surface Casing – Centralizers to be placed on bottom 3 joints of casing (1 per joints).

**NOTE: Use of the DV tools and ACP’s will be based on the magnitude of drilling fluid losses encountered while drilling the Intermediate section and concerns about cement possibly not being circulated to surface. Should heavy losses not be encountered, the DV tool and ACP may not be used.*



SECTION 4: CEMENT

The proposed cementing program has been designed to protect and/or isolate all usable water zones, potential productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium utilized (other than cement) shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat in a competent formation which will contain the maximum pressure to which it will be exposed during the drilling process. All indications of usable water shall be reported.

- Pea gravel or other material shall not be used to fill around the conductor or surface casing in the event cement is not circulated to surface or if cement fallback occurs.
- The conductor and surface casing strings shall be cemented back to surface. If cement is not circulated for the surface casing, or if the cement column falls back after circulation, remedial cementing will be performed to cement the casing to surface using 1" tubing. No more than 100' will be remediated without prior approval. Although cement circulation to surface of the intermediate casing string is desired, it is not required. If the top of cement (TOC) is found to be within the surface casing, no remedial work will be performed.
- Top plugs will be used to reduce possible contamination of the cement slurry by the displacement fluid. A bottom plug (or other acceptable techniques such as a pre-flush fluid, inner string, etc.) will be used to isolate the cement slurry from the drilling fluid being displaced ahead of the cement.
- All cement volumes will be based on actual hole conditions.

Conductor Casing: Single Stage (0'- 150' MD) – 24" or 26" Hole x 20" Casing, 100% XS

- Cement to be circulated to surface with approximately 354 sx Class G + 2% CaCl₂ + 0.25#/sk Poly-Flake mixed at 14.6 ppg using 6.69 gal/sk fresh water with yield of 1.39 ft³/sk. The approximate volume of the conductor slurry is +/- 492 ft³.

Surface Casing: Single Stage (0'- 3951') – 17-1/2" Hole x 13-3/8" Casing, 50% XS

- Cement to be circulated to surface. Lead Slurry will consist of approximately 1835 sx 65/35 Class G/Poz + adds mixed at 12.5 ppg using 10.71 gal/sk fresh water with yield of 1.96 ft³/sk. Tail Slurry will consist of approximately 459 sx Class G + adds mixed at 15.8 ppg using 5.17 gal/sk fresh water with yield of 1.21 ft³/sk. Total approximate volume of Surface slurries is +/- 4150ft³.



Intermediate Casing: Two Stages (0'- 6939' MD) – 12-1/4" Hole x 9-5/8" Casing, DV tool at ±5397' MD ECP at ±5439' MD, 30% XS

Cement to be circulated to surface.

Stage 1: Lead Slurry will consist of approximately 260 sx 65/35 Class G/Poz + adds at 12.5 ppg using 10.72 gal/sk fresh water with yield of 1.95 ft³/sk. Stage 1: Tail Slurry will consist of approximately 133 sx Class G + adds mixed at 15.6 ppg using 5.20 gal/sk fresh water with yield of 1.18 ft³/sk. Total approximate volume of both slurries 664 ft³.

Stage 2: Lead Slurry will consist of approximately 975sx 65/35 Class G/Poz mixed at 10.72 ppg using 10.72 gal/sk fresh water with yield of 1.95 ft³/sk. Stage 2: Tail Slurry will consist of approximately 104 sx Class G + adds mixed at 15.6 ppg using 5.20 gal/sk fresh water with yield of 1.18 ft³/sk. Total approximate volume of both slurries 2024ft³.

Total approximate volume of all Intermediate slurries is +/- 2688 ft³.

Production Casing: Single Stage (0'-23270' MD) – 8-3/4" Hole x 5-1/2" Casing, 50% XS

Lead Slurry to be preceded by 10 bbls fresh water, 80 bbls D-Mud Breaker and 10 bbls fresh water. Lead slurry will consist of approximately 6455sx 80/20 Class G + adds mixed at 15.8 ppg using 4.40 gal/sk fresh water with yield of 1.10 ft³/sk. Top of cement approximately 1000 ft into Intermediate casing at 5939 ft.

Total approximate volume of the production slurry is 6455 ft³.

All cement slurries will meet or exceed minimum BLM and NMOCD requirements. Slurries used will be the slurries listed above or equivalent slurries, depending on service provider selected. Cement yields may change based on actual slurries selected.

All "waiting on cement" (WOC) times shall be either a minimum of 8 hours or the time required to achieve a minimum of 500 psi compressive strength at the casing shoe.



CASING/CEMENT SUMMARY

Northeast Blanco Unit 604 7H

	STRING			
	CONDUCTOR	SURFACE	INTERMEDIATE	PRODUCTION
SIZE (in)	20	13.375	9.625	5.5
WEIGHT (#/ft)	78.60	54.50	40.00	20.00
SET DEPTH (ft)	150	3951	6939	23,270
DV DEPTH (ft)			5397	
ECP Depth (ft)			5439	
STG 1 - LEAD VOL (sx)	354	1835	260	5868
DESC	Class G + 2.0% CaCl ₂ + 0.25 lbs/sk Cello Flake	65/35 Class G/Poz + adds	65/35 Class G/Poz + adds	80/20 Class G/Poz + adds
STG 1 - TAIL VOL (sx)		459	133	
DESC		Class G + adds	Class G + adds	
STG 2 - LEAD VOL (sx)			975	
DESC			65/35 Class G/Poz + adds	
STG 2 - TAIL VOL (sx)			104	
DESC			Class G + adds	
Planned TOC	SURFACE	SURFACE	SURFACE	5939
Total Ft ³ Cement	492	4151	2688	6455
TOTAL WATER REQ'D (BBLs)*	113	1136	1350	1231



SECTION 5: CIRCULATING MEDIUM (MUD PROGRAM)

CLOSED-LOOP SYSTEM DESIGN PLAN

The closed-loop system will consist of a series of temporary, above-ground storage tanks and/or haul-off bins suitable for holding the cuttings and fluid from drilling operations. The closed-loop system will not utilize temporary earthen pits, below-grade storage tanks, below-grade sumps, or drying pads.

Design considerations include:

- The closed-loop system will be signed in accordance with 19.15.17.11 NMAC.
- The storage tanks of the closed-loop system will be of adequate volume to ensure confinement of all fluids and provide sufficient freeboard to prevent uncontrolled releases.
- Topsoil will be salvaged and stored for use in reclamation activities.

CLOSED-LOOP SYSTEM OPERATING & MAINTENANCE PLAN

The closed-loop system will be operated and maintained to contain liquids and solids, minimize the amount of drilling fluids and cuttings requiring disposal, maximize the amount of drilling fluid recycled and reused in the drilling process, isolate drilling wastes from the environment, prevent contamination of fresh water, and protect public health and the environment.

Operation and maintenance considerations include:

- Fluid levels will be maintained to provide sufficient freeboard to prevent over-topping.
- Visual inspections will be conducted daily to identify any potential leaks and to ensure that the closed-loop system storage tanks have sufficient freeboard to prevent over-topping.
- Only drilling fluids or cuttings intrinsic to, used by, or generated from, drilling operations will be stored in the closed-loop system storage tanks. Hazardous waste, miscellaneous solid waste, and/or debris will not be stored in the storage tanks.
- The OCD District Office will be notified within 48 hours of discovery of a leak in the closed-loop drilling system. If a leak is discovered, all liquid will be removed within 48 hours and the damage repaired.

CLOSED-LOOP SYSTEM CLOSURE PLAN

- The closed-loop system will be closed in accordance with 19.15.17.13 NMAC.

Closure considerations include:

- Drilling fluids will be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical.
- Residual fluids will be pulled from the storage tanks, mixed with saw dust or similar absorbent material, and disposed of at Industrial Envirotech, Inc. waste disposal facilities.
- Remaining cuttings or sludges will be vacuumed from the storage tanks and disposed of at an EPA-approved waste disposal facility.
- Storage tanks will be removed from the well location during the rig move.
- Well pad will be reclaimed and seeded in accordance with subsections G, Hand I of 19.15.17.13 NMAC.

MUD PROGRAM

Interval MD (ft)	Hole Section	Hole Size	Type	Mud Wt (ppg)	FL	PV	YP	Ph	Remarks
0 - 150	Conductor	24" or 26"	FW/Gel	8.4-9.0	NC	8	12	9.0	Spud Mud
0 - 3951	Surface	17-1/2"	LSND	8.4-9.0	<8	4-6	12-15	10.0	Fresh Water
0 - 6939	Intermediate	12-1/4"	LSND	8.6-9.0	<8	4-6	12-15	10.0	Fresh Water
0 - 23270	Production	8-3/4"	OBM	9.0-12.0	<8	14-20	8-14	11.0	OBM

NOTES: Sufficient weighting material will be on hand to weight mud up to 1 ppg over design, if required.
 A Pason Pit Volume Totalizer (PVT) or equivalent equipment will be installed on each pit to monitor pit levels.
 A trip tank equipped with a Pason PVT will be used to monitor trip volumes.



SECTION 6: TESTING, LOGGING, & CORING

Testing: None planned

Open-hole Logging: Azimuthal & Radial GR – Drilling curve and lateral

Mud Logging: Geologist and manned mud-logging unit on location from surface casing to TD. Gas-detecting equipment will be installed in the mud return system and hydrocarbon gas shall be monitored for pore pressure changes from base of surface casing to TD.

Coring: None

Cased-hole Logging: A Cement Bond Log (CBL) will be run if cement returns are not observed on surface during surface casing and intermediate casing cementing operations. The CBL will confirm both the quality and actual top of the cement column behind pipe.

SECTION 7: ANTICIPATED RESERVOIR CONDITIONS

- Normal to subnormal pressure gradient expected to TD.
- Maximum anticipated surface pressure and casing design parameters determined using 0.61 psi/ft.
- Maximum anticipated BHP @ 7037' TVD: 4293 psi.
- Maximum anticipated BHT @ 7037' TVD: 186°F.
- Possible lost circulation in the Fruitland Coal (~3000') through the Mesa Verde formations (~5490' – 6250'). Lost circulation has been successfully mitigated with lost circulation materials in concentrations of up to 30% by volume. Intermediate casing will be set through this interval to ±6,940' (250' into Mancos).
- No hydrogen sulfide gas is anticipated. If H₂S is encountered the guidelines in Onshore Order No. 6 will be followed.

SECTION 8: OTHER

- **Directional Plans:** Horizontal well, directional drilling plan attached. Lateral KOP subject to mud log evaluation.
- **Completion:**
 - **Pressure test**
 - Pressure test production casing to allowable frac pressure or as per BLM requirements.
 - **Stimulation**
 - Plan is for well to be stimulated with a water frac and proppant frac design TBD
 - Number of stages and the amount of proppant will be adjusted based on the petrophysical properties of the target zone.
 - Stages will be isolated with composite bridge plugs.
 - Plugs will be drilled out using coiled tubing.
 - Flow back well according to flowback procedure.
 - **Turn well to production.**
 - It is intended to produce the well up the casing (without installing tubing) for at least 60 days or until tubing is needed to unload the well.
 - **Timing**
 - Drilling is scheduled to begin 2026.
 - Expected drilling time is roughly 35 days for the well and 105 days for the 3-well pad.
 - If possible, completion operations will commence immediately upon drilling of all wells on the pad and moving the drilling rig off location, dependent on service company availability. Otherwise completion operations will take place in 2026.

Directional Plan



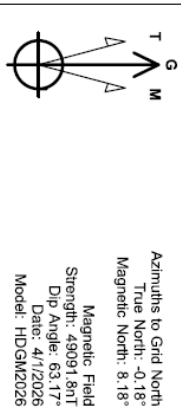
NEBU 604 7H
OH
Plan #2
GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
+N/-S+E/-W Northing Easting Longitude Slot
0.00 0.00 2147469.88 2811874.56 36.9011050 -107.5296940 7H

PROJECT DETAILS: San Juan County, NM NAD83
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Elevation: CGS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level



Plan: Plan #2 (NEBU 604 7H/OH)

Created By: Jamie Collins Date: 12:22, March 03 2026



CASING DETAILS

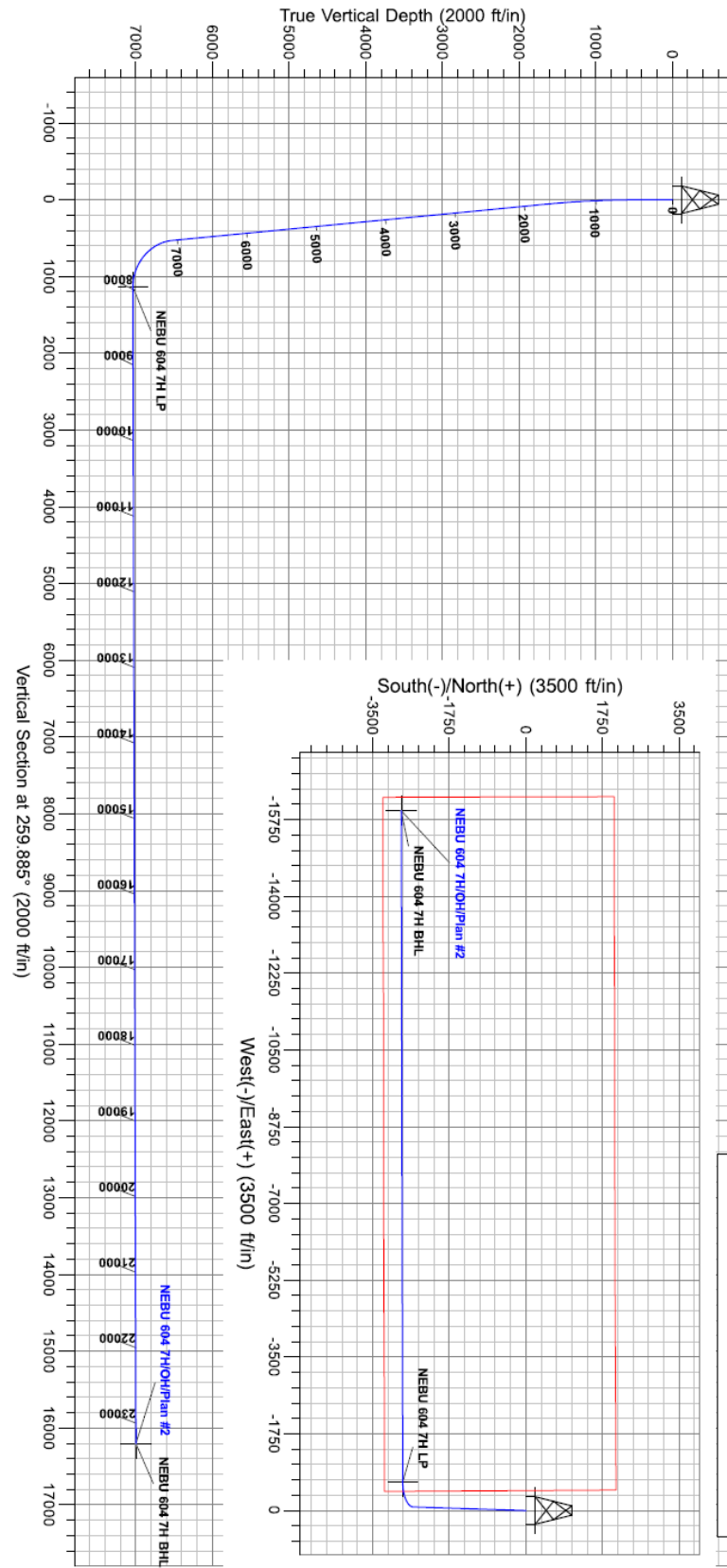
No casing data is available

PLAN DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	Vsect	Annotation
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	Start Build 2.00
1655.87	25.12	181.804	1616.03	-270.76	-8.53	2.00	55.95	Start 5422.57' hold at 1655.87 MD
7078.44	25.12	181.804	6525.85	-2571.35	-81.00	0.00	531.33	Start DLS 10.00 TFO 88.19
7971.61	90.15	269.876	7037.00	-2812.78	-654.73	10.00	1138.55	Start 15298.01' hold at 7971.61 MD
23269.63	90.15	269.876	6997.00	-2845.88	-15952.66	0.00	16204.52	TD at 23269.63

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
NEBU 604 7H LP	7037.00	-2812.78	-654.73	2144657.07	2811219.82	36.8933847	-107.5319536
NEBU 604 7H BHL	6997.00	-2845.98	-15952.66	2144623.98	27959271.93	36.8934150	-107.5842690





Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Company:	Mach Natural Resources	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Project:	San Juan County, NM NAD83	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site:	NEBU 604 Pad	North Reference:	Grid
Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Project	San Juan County, NM NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	NEBU 604 Pad				
Site Position:		Northing:	2,147,677.25 usft	Latitude:	36.9016743
From:	Lat/Long	Easting:	2,811,918.26 usft	Longitude:	-107.5295323
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	0.18 °

Well	NEBU 604 7H - Slot 7H					
Well Position	+N/-S	-207.40 ft	Northing:	2,147,469.84 usft	Latitude:	36.9011050
	+E/-W	-43.70 ft	Easting:	2,811,874.56 usft	Longitude:	-107.5296840
Position Uncertainty	0.00 ft		Wellhead Elevation:		Ground Level:	6,501.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2026	4/1/2026	8.37	63.17	49,091.80000000

Design	Plan #2				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	259.885	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,655.87	25.12	181.804	1,616.03	-270.76	-8.53	2.00	2.00	0.00	181.80	
7,078.44	25.12	181.804	6,525.85	-2,571.35	-81.00	0.00	0.00	0.00	0.00	
7,971.61	90.15	269.876	7,037.00	-2,812.78	-654.73	10.00	7.28	9.86	88.19	NEBU 604 7H LP
23,269.63	90.15	269.876	6,997.00	-2,845.88	-15,952.66	0.00	0.00	0.00	0.00	NEBU 604 7H BHL

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
28.50	28.50	Animas		0.00	0.000	
2,510.12	2,389.50	Ojo Alamo		0.00	0.000	
2,641.54	2,508.50	Kirtland		0.00	0.000	
3,186.03	3,001.50	Fruitland		0.00	0.000	
3,556.02	3,336.50	Pictured Cliffs		0.00	0.000	
3,821.08	3,576.50	Lewis		0.00	0.000	
5,496.51	5,093.50	Cliffhouse		0.00	0.000	
5,910.67	5,468.50	Menefee		0.00	0.000	
6,222.12	5,750.50	Point Lookout		0.00	0.000	
6,689.30	6,173.50	Mancos		0.00	0.000	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
400.00	400.00	0.00	0.00	Start Build 2.00	
1,655.87	1,616.03	-270.76	-8.53	Start 5422.57 hold at 1655.87 MD	
7,078.44	6,525.85	-2,571.35	-81.00	Start DLS 10.00 TFO 88.19	
7,971.61	7,037.00	-2,812.78	-654.73	Start 15298.01 hold at 7971.61 MD	
23,269.63	6,997.00	-2,845.90	-15,952.66	TD at 23269.63	



Mach Natural Resources

**San Juan County, NM NAD83
NEBU 604 Pad
NEBU 604 7H**

**OH
Plan #2**

Anticollision Report

03 March, 2026



www.scientificdrilling.com





Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.00 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	3/3/2026		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	23,269.63	Plan #2 (OH)	MWD+HDGM	OWSG MWD + HDGM

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance		Separation Factor	Warning
			Between Centres (ft)	Between Ellipses (ft)		
NEBU 604 Pad						
NEBU 231J - OH - OH						Out of range
NEBU 311M - OH - OH	5,940.86	5,448.04	266.93	14.29	1.057	Collision Avoidance Req., CC
NEBU 311M - OH - OH	6,000.00	5,501.59	268.11	13.01	1.051	Collision Avoidance Req., ES
NEBU 324P - OH - OH	10,943.71	7,551.29	323.08	109.17	1.510	Collision Risk Procedures Re
NEBU 482 - OH - OH						Out of range
NEBU 490A - OH - OH	4,200.00	3,471.00	1,557.42	1,434.37	12.657	SF
NEBU 490A - OH - OH	4,300.00	3,471.00	1,552.41	1,430.51	12.735	ES
NEBU 490A - OH - OH	4,327.89	3,471.00	1,552.16	1,430.66	12.775	CC
NEBU 498 - OH - OH	3,800.00	3,385.01	623.83	474.31	4.172	SF
NEBU 498 - OH - OH	3,900.00	3,385.01	613.65	468.38	4.224	ES
NEBU 498 - OH - OH	3,912.96	3,385.01	613.51	469.06	4.247	CC
NEBU 504 - OH - OH						Out of range
NEBU 604 4H - OH - OH	100.00	98.30	212.00	211.59	507.190	CC
NEBU 604 4H - OH - OH	404.45	403.02	212.61	210.31	92.672	ES
NEBU 604 4H - OH - OH	1,000.00	957.39	310.48	304.09	48.605	SF
NEBU 604 6H - OH - OH	459.11	461.28	178.55	175.86	66.182	CC
NEBU 604 6H - OH - OH	500.00	502.76	178.77	175.79	59.877	ES
NEBU 604 6H - OH - OH	1,100.00	1,089.79	252.90	245.70	35.081	SF
NEBU 604 8H - OH - OH	100.00	97.67	153.85	153.43	366.936	CC, ES
NEBU 604 8H - OH - OH	23,269.63	22,430.77	1,466.29	536.03	1.576	Collision Risk Procedures Re
NEBU 604 9H - OH - Plan #4	400.00	400.00	19.95	17.28	7.470	CC
NEBU 604 9H - OH - Plan #4	500.00	500.01	20.48	17.12	6.105	ES
NEBU 604 9H - OH - Plan #4	7,619.90	7,869.20	226.45	157.83	3.300	SF
NEBU 604 COM 1H - OH - OH	416.32	414.03	233.86	232.47	168.081	CC, ES
NEBU 604 COM 1H - OH - OH	1,500.00	1,432.53	445.42	439.31	72.919	SF
NEBU 604 COM 2H - OH - OH	100.00	95.61	216.44	216.17	831.912	CC, ES
NEBU 604 COM 2H - OH - OH	3,800.00	3,581.59	1,326.32	1,304.35	60.363	SF
NEBU 604 COM 3H - OH - OH	430.84	429.06	194.86	193.42	135.218	CC, ES
NEBU 604 COM 3H - OH - OH	5,200.00	5,209.37	909.29	869.04	22.591	SF
NEBU 77 - OH - OH	17,328.54	6,065.00	1,155.20	866.21	3.997	CC, ES, SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 100-UNKNOWN													Offset Well Error:	0.00 ft
Reference				Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	174.53	-2,097.12	201.00	2,107.27					
100.00	100.00	52.20	52.20	0.26	1.04	174.53	-2,097.12	201.00	2,106.73	2,105.43	1.30	1,615.533		
200.00	200.00	152.20	152.20	0.62	4.09	174.53	-2,097.12	201.00	2,106.73	2,102.02	4.71	447.624		
300.00	300.00	252.20	252.20	0.98	8.09	174.53	-2,097.12	201.00	2,106.73	2,097.67	9.06	232.404		
400.00	400.00	352.20	352.20	1.34	12.09	174.53	-2,097.12	201.00	2,106.73	2,093.31	13.42	156.944		
500.00	499.98	452.18	452.18	1.68	16.09	-7.29	-2,097.12	201.00	2,105.00	2,087.23	17.77	118.490		
600.00	599.84	552.04	552.04	2.02	20.08	-7.32	-2,097.12	201.00	2,099.81	2,077.71	22.10	95.025		
700.00	699.45	651.65	651.65	2.36	24.07	-7.37	-2,097.12	201.00	2,091.17	2,064.74	26.43	79.125		
800.00	798.70	750.90	750.90	2.72	28.04	-7.45	-2,097.12	201.00	2,079.08	2,048.33	30.75	67.608		
900.00	897.47	849.67	849.67	3.10	31.99	-7.55	-2,097.12	201.00	2,063.57	2,028.51	35.06	58.858		
1,000.00	995.62	947.83	947.83	3.50	35.91	-7.67	-2,097.12	201.00	2,044.65	2,005.30	39.35	51.962		
1,100.00	1,093.06	1,045.26	1,045.26	3.93	39.81	-7.81	-2,097.12	201.00	2,022.35	1,978.74	43.61	46.370		
1,200.00	1,189.64	1,141.85	1,141.85	4.38	43.67	-7.99	-2,097.12	201.00	1,996.70	1,948.85	47.85	41.730		
1,300.00	1,285.27	1,237.47	1,237.47	4.87	47.50	-8.19	-2,097.12	201.00	1,967.73	1,915.68	52.05	37.805		
1,400.00	1,379.82	1,332.02	1,332.02	5.39	51.28	-8.43	-2,097.12	201.00	1,935.48	1,879.27	56.21	34.431		
1,500.00	1,473.17	1,425.37	1,425.37	5.94	55.01	-8.70	-2,097.12	201.00	1,899.99	1,839.66	60.33	31.492		
1,600.00	1,565.21	1,517.42	1,517.42	6.53	58.70	-9.01	-2,097.12	201.00	1,861.32	1,796.91	64.41	28.900		
1,655.87	1,616.03	1,568.23	1,568.23	6.88	60.73	-9.21	-2,097.12	201.00	1,838.34	1,771.68	66.66	27.577		
1,700.00	1,655.99	1,608.19	1,608.19	7.16	62.33	-9.30	-2,097.12	201.00	1,819.81	1,751.38	68.43	26.592		
1,800.00	1,746.53	1,698.73	1,698.73	7.80	65.95	-9.52	-2,097.12	201.00	1,777.83	1,705.39	72.45	24.540		
1,900.00	1,837.08	1,789.28	1,789.28	8.46	69.57	-9.75	-2,097.12	201.00	1,735.88	1,659.41	76.47	22.701		
2,000.00	1,927.62	1,879.82	1,879.82	9.12	73.19	-10.00	-2,097.12	201.00	1,693.95	1,613.46	80.49	21.045		
2,100.00	2,018.16	1,970.37	1,970.37	9.79	76.81	-10.25	-2,097.12	201.00	1,652.04	1,567.52	84.52	19.546		
2,200.00	2,108.71	2,060.91	2,060.91	10.47	80.44	-10.52	-2,097.12	201.00	1,610.17	1,521.62	88.55	18.183		
2,300.00	2,199.25	2,151.45	2,151.45	11.15	84.06	-10.80	-2,097.12	201.00	1,568.33	1,475.73	92.59	16.938		
2,400.00	2,289.80	2,242.00	2,242.00	11.83	87.68	-11.10	-2,097.12	201.00	1,526.51	1,429.88	96.63	15.797		
2,500.00	2,380.34	2,332.54	2,332.54	12.52	91.30	-11.41	-2,097.12	201.00	1,484.74	1,384.06	100.68	14.747		
2,600.00	2,470.88	2,423.09	2,423.09	13.21	94.92	-11.74	-2,097.12	201.00	1,443.00	1,338.27	104.73	13.778		
2,700.00	2,561.43	2,513.63	2,513.63	13.90	98.55	-12.10	-2,097.12	201.00	1,401.31	1,292.53	108.78	12.882		
2,800.00	2,651.97	2,604.17	2,604.17	14.59	102.17	-12.47	-2,097.12	201.00	1,359.67	1,246.82	112.84	12.049		
2,900.00	2,742.52	2,694.72	2,694.72	15.29	105.79	-12.87	-2,097.12	201.00	1,318.07	1,201.17	116.90	11.275		
3,000.00	2,833.06	2,785.26	2,785.26	15.98	109.41	-13.29	-2,097.12	201.00	1,276.53	1,155.56	120.97	10.553		
3,100.00	2,923.60	2,875.81	2,875.81	16.68	113.03	-13.74	-2,097.12	201.00	1,235.06	1,110.02	125.04	9.877		
3,200.00	3,014.15	2,966.35	2,966.35	17.38	116.65	-14.22	-2,097.12	201.00	1,193.65	1,064.53	129.12	9.245		
3,300.00	3,104.69	3,056.90	3,056.90	18.08	120.28	-14.73	-2,097.12	201.00	1,152.31	1,019.12	133.20	8.651		
3,400.00	3,195.24	3,147.44	3,147.44	18.78	123.90	-15.29	-2,097.12	201.00	1,111.06	973.78	137.28	8.093		
3,500.00	3,285.78	3,237.98	3,237.98	19.48	127.52	-15.88	-2,097.12	201.00	1,069.91	928.53	141.38	7.568		
3,600.00	3,376.32	3,328.53	3,328.53	20.18	131.14	-16.53	-2,097.12	201.00	1,028.86	883.38	145.48	7.072		
3,700.00	3,466.87	3,419.07	3,419.07	20.88	134.76	-17.22	-2,097.12	201.00	987.93	838.33	149.59	6.604		
3,800.00	3,557.41	3,509.62	3,509.62	21.59	138.38	-17.97	-2,097.12	201.00	947.13	793.41	153.71	6.162		
3,900.00	3,647.96	3,600.16	3,600.16	22.29	142.01	-18.79	-2,097.12	201.00	906.48	748.63	157.85	5.743		
4,000.00	3,738.50	3,690.70	3,690.70	23.00	145.63	-19.69	-2,097.12	201.00	866.00	704.01	162.00	5.346		
4,100.00	3,829.05	3,781.25	3,781.25	23.70	149.25	-20.67	-2,097.12	201.00	825.73	659.57	166.16	4.969		
4,200.00	3,919.59	3,871.79	3,871.79	24.41	152.87	-21.75	-2,097.12	201.00	785.68	615.33	170.35	4.612		
4,300.00	4,010.13	3,962.34	3,962.34	25.11	156.49	-22.94	-2,097.12	201.00	745.90	571.34	174.56	4.273		
4,400.00	4,100.68	4,052.88	4,052.88	25.82	160.12	-24.26	-2,097.12	201.00	706.42	527.63	178.79	3.951		
4,500.00	4,191.22	4,143.42	4,143.42	26.52	163.74	-25.74	-2,097.12	201.00	667.32	484.25	183.07	3.645		
4,600.00	4,281.77	4,233.97	4,233.97	27.23	167.36	-27.38	-2,097.12	201.00	628.64	441.26	187.38	3.355		
4,700.00	4,372.31	4,324.51	4,324.51	27.94	170.98	-29.24	-2,097.12	201.00	590.49	398.74	191.75	3.079		
4,800.00	4,462.85	4,415.06	4,415.06	28.64	174.60	-31.33	-2,097.12	201.00	552.96	356.78	196.18	2.819		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 311M - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 100-UNKNOWN															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
4,900.00	4,553.40	4,505.60	4,505.60	29.35	178.22	-33.71	-2,097.12	201.00	516.19	315.51	200.68	2.572			
5,000.00	4,643.94	4,596.14	4,596.14	30.06	181.85	-36.43	-2,097.12	201.00	480.36	275.08	205.28	2.340			
5,100.00	4,734.49	4,686.69	4,686.69	30.76	185.47	-39.56	-2,097.12	201.00	445.70	235.71	209.99	2.122			
5,200.00	4,825.03	4,777.23	4,777.23	31.47	189.09	-43.15	-2,097.12	201.00	412.49	197.66	214.82	1.920	Collision Risk Procedures Req.		
5,300.00	4,915.57	4,867.78	4,867.78	32.18	192.71	-47.30	-2,097.12	201.00	381.12	161.31	219.81	1.734	Collision Risk Procedures Req.		
5,400.00	5,006.12	4,958.32	4,958.32	32.89	196.33	-52.09	-2,097.12	201.00	352.08	127.14	224.94	1.565	Collision Risk Procedures Req.		
5,500.00	5,096.66	5,048.87	5,048.87	33.59	199.95	-57.59	-2,097.12	201.00	325.99	95.78	230.21	1.416	Collision Avoidance Req.		
5,600.00	5,187.21	5,139.41	5,139.41	34.30	203.58	-63.86	-2,097.12	201.00	303.62	68.05	235.57	1.289	Collision Avoidance Req.		
5,700.00	5,277.75	5,229.95	5,229.95	35.01	207.20	-70.87	-2,097.12	201.00	285.84	44.94	240.90	1.187	Collision Avoidance Req.		
5,800.00	5,368.29	5,320.50	5,320.50	35.72	210.82	-78.54	-2,097.12	201.00	273.55	27.49	246.05	1.112	Collision Avoidance Req.		
5,900.00	5,458.84	5,411.04	5,411.04	36.43	214.44	-86.63	-2,097.12	201.00	267.49	16.67	250.83	1.066	Collision Avoidance Req.		
5,940.86	5,495.84	5,448.04	5,448.04	36.72	215.92	-90.00	-2,097.12	201.00	266.93	14.29	252.64	1.057	Collision Avoidance Req., CC		
6,000.00	5,549.38	5,501.59	5,501.59	37.14	218.06	-94.87	-2,097.12	201.00	268.11	13.01	255.10	1.051	Collision Avoidance Req., ES, SF		
6,100.00	5,639.93	5,592.13	5,592.13	37.84	221.69	-102.91	-2,097.12	201.00	275.35	16.50	258.85	1.064	Collision Avoidance Req.		
6,200.00	5,730.47	5,682.67	5,682.67	38.55	225.31	-110.46	-2,097.12	201.00	288.71	26.54	262.17	1.101	Collision Avoidance Req.		
6,300.00	5,821.02	5,773.22	5,773.22	39.26	228.93	-117.34	-2,097.12	201.00	307.40	42.17	265.23	1.159	Collision Avoidance Req.		
6,400.00	5,911.56	5,863.76	5,863.76	39.97	232.55	-123.47	-2,097.12	201.00	330.51	62.33	268.18	1.232	Collision Avoidance Req.		
6,500.00	6,002.10	5,954.31	5,954.31	40.68	236.17	-128.84	-2,097.12	201.00	357.19	86.04	271.15	1.317	Collision Avoidance Req.		
6,600.00	6,092.65	6,044.85	6,044.85	41.39	239.79	-133.50	-2,097.12	201.00	386.70	112.50	274.19	1.410	Collision Avoidance Req.		
6,700.00	6,183.19	6,135.39	6,135.39	42.10	243.42	-137.55	-2,097.12	201.00	418.44	141.10	277.34	1.509	Collision Risk Procedures Req.		
6,800.00	6,273.74	6,225.94	6,225.94	42.81	247.04	-141.05	-2,097.12	201.00	451.94	171.34	280.60	1.611	Collision Risk Procedures Req.		
6,900.00	6,364.28	6,316.48	6,316.48	43.52	250.66	-144.09	-2,097.12	201.00	486.83	202.87	283.97	1.714	Collision Risk Procedures Req.		
7,000.00	6,454.82	6,407.03	6,407.03	44.23	254.28	-146.75	-2,097.12	201.00	522.85	235.42	287.43	1.819	Collision Risk Procedures Req.		
7,078.44	6,525.85	6,478.05	6,478.05	44.78	257.12	-148.59	-2,097.12	201.00	551.74	261.54	290.20	1.901	Collision Risk Procedures Req.		
7,100.00	6,545.36	6,497.56	6,497.56	44.93	257.90	-154.36	-2,097.12	201.00	559.97	268.99	290.98	1.924	Collision Risk Procedures Req.		
7,150.00	6,590.41	6,542.61	6,542.61	45.28	259.70	-167.19	-2,097.12	201.00	580.63	287.78	292.84	1.983	Collision Risk Procedures Req.		
7,200.00	6,634.92	6,587.12	6,587.12	45.63	261.48	-178.79	-2,097.12	201.00	603.25	308.49	294.76	2.047			
7,250.00	6,678.53	6,630.73	6,630.73	45.95	263.23	-171.09	-2,097.12	201.00	627.62	330.90	296.72	2.115			
7,300.00	6,720.93	6,673.13	6,673.13	46.26	264.93	-162.43	-2,097.12	201.00	653.58	354.90	298.68	2.188			
7,350.00	6,761.78	6,713.98	6,713.98	46.56	266.56	-155.02	-2,097.12	201.00	681.01	380.38	300.63	2.265			
7,400.00	6,800.78	6,752.98	6,752.98	46.84	268.12	-148.61	-2,097.12	201.00	709.84	407.29	302.55	2.346			
7,450.00	6,837.62	6,789.83	6,789.83	47.10	269.59	-142.94	-2,097.12	201.00	740.03	435.60	304.42	2.431			
7,500.00	6,872.04	6,824.24	6,824.24	47.34	270.97	-137.79	-2,097.12	201.00	771.51	465.29	306.22	2.519			
7,550.00	6,903.76	6,855.96	6,855.96	47.57	272.24	-132.95	-2,097.12	201.00	804.24	496.31	307.93	2.612			
7,600.00	6,932.55	6,884.75	6,884.75	47.79	273.39	-128.26	-2,097.12	201.00	838.16	528.62	309.54	2.708			
7,650.00	6,958.18	6,910.39	6,910.39	47.99	274.42	-123.57	-2,097.12	201.00	873.19	562.17	311.02	2.807			
7,700.00	6,980.47	6,932.67	6,932.67	48.18	275.31	-118.78	-2,097.12	201.00	909.22	596.84	312.38	2.911			
7,750.00	6,999.24	6,951.44	6,951.44	48.35	276.06	-113.81	-2,097.12	201.00	946.13	632.54	313.59	3.017			
7,800.00	7,014.34	6,966.55	6,966.55	48.52	276.66	-108.62	-2,097.12	201.00	983.75	669.10	314.65	3.127			
7,850.00	7,025.67	6,977.88	6,977.88	48.68	277.12	-103.24	-2,097.12	201.00	1,021.90	706.36	315.54	3.239			
7,900.00	7,033.14	6,985.34	6,985.34	48.83	277.41	-97.72	-2,097.12	201.00	1,060.36	744.10	316.26	3.353			
7,950.00	7,036.69	6,988.89	6,988.89	48.97	277.56	-92.18	-2,097.12	201.00	1,098.92	782.11	316.81	3.469			
7,971.61	7,037.00	6,989.20	6,989.20	49.03	277.57	-89.82	-2,097.12	201.00	1,115.55	798.56	317.00	3.519			
8,000.00	7,036.93	6,989.13	6,989.13	49.11	277.57	-89.81	-2,097.12	201.00	1,137.51	820.30	317.21	3.586			
8,100.00	7,036.66	6,988.87	6,988.87	49.44	277.55	-89.79	-2,097.12	201.00	1,216.99	899.09	317.90	3.828			
8,200.00	7,036.40	6,988.61	6,988.61	49.87	277.54	-89.77	-2,097.12	201.00	1,299.31	980.82	318.49	4.080			
8,300.00	7,036.14	6,988.34	6,988.34	50.41	277.53	-89.75	-2,097.12	201.00	1,383.96	1,064.96	319.00	4.338			
8,400.00	7,035.88	6,988.08	6,988.08	51.10	277.52	-89.73	-2,097.12	201.00	1,470.53	1,151.10	319.44	4.604			
8,500.00	7,035.62	6,987.82	6,987.82	51.97	277.51	-89.71	-2,097.12	201.00	1,558.72	1,238.90	319.81	4.874			
8,600.00	7,035.36	6,987.56	6,987.56	53.05	277.50	-89.69	-2,097.12	201.00	1,648.25	1,328.11	320.14	5.149			
8,700.00	7,035.10	6,987.30	6,987.30	54.35	277.49	-89.67	-2,097.12	201.00	1,738.93	1,418.50	320.43	5.427			

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



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Anticollision Report



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Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 311M - OH - OH													Offset Well Error:	0.00 ft
Survey Program: 100-UNKNOWN														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
8,800.00	7,034.83	6,987.04	6,987.04	55.87	277.48	89.65	-2,097.12	201.00	1,830.57	1,509.90	320.68	5.708		
8,900.00	7,034.57	6,986.78	6,986.78	57.61	277.47	89.63	-2,097.12	201.00	1,923.05	1,602.16	320.90	5.993		
9,000.00	7,034.31	6,986.51	6,986.51	59.52	277.46	89.60	-2,097.12	201.00	2,016.25	1,695.16	321.09	6.279		
9,100.00	7,034.05	6,986.25	6,986.25	61.59	277.45	89.58	-2,097.12	201.00	2,110.07	1,788.80	321.27	6.568		
9,200.00	7,033.79	6,985.99	6,985.99	63.79	277.44	89.56	-2,097.12	201.00	2,204.43	1,883.01	321.42	6.858		
9,300.00	7,033.53	6,985.73	6,985.73	66.09	277.43	89.54	-2,097.12	201.00	2,299.27	1,977.71	321.56	7.150		
9,400.00	7,033.27	6,985.47	6,985.47	68.49	277.42	89.52	-2,097.12	201.00	2,394.53	2,072.85	321.69	7.444		
9,500.00	7,033.00	6,985.21	6,985.21	70.95	277.41	89.50	-2,097.12	201.00	2,490.17	2,168.36	321.80	7.738		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



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Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 324P - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 334-MWD, 5000-INCLINOMETER															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
8,500.00	7,035.62	7,557.68	6,996.12	51.97	108.26	-91.13	-3,142.29	-3,626.12	2,464.97	2,311.12	153.85	16.022			
8,600.00	7,035.36	7,557.42	6,995.86	53.05	108.26	-91.09	-3,142.29	-3,626.12	2,365.87	2,212.17	153.70	15.392			
8,700.00	7,035.10	7,557.16	6,995.60	54.35	108.25	-91.04	-3,142.29	-3,626.12	2,266.85	2,113.29	153.55	14.763			
8,800.00	7,034.83	7,556.89	6,995.33	55.87	108.24	-90.99	-3,142.29	-3,626.12	2,167.91	2,014.52	153.40	14.133			
8,900.00	7,034.57	7,556.63	6,995.07	57.61	108.23	-90.95	-3,142.29	-3,626.12	2,069.08	1,915.85	153.24	13.503			
9,000.00	7,034.31	7,556.37	6,994.81	59.52	108.23	-90.90	-3,142.29	-3,626.12	1,970.37	1,817.30	153.07	12.872			
9,100.00	7,034.05	7,556.11	6,994.55	61.59	108.22	-90.85	-3,142.29	-3,626.12	1,871.80	1,718.89	152.91	12.241			
9,200.00	7,033.79	7,555.85	6,994.29	63.79	108.21	-90.81	-3,142.29	-3,626.12	1,773.38	1,620.64	152.75	11.610			
9,300.00	7,033.53	7,555.59	6,994.03	66.09	108.20	-90.76	-3,142.29	-3,626.12	1,675.16	1,522.57	152.59	10.978			
9,400.00	7,033.27	7,555.32	6,993.77	68.49	108.20	-90.72	-3,142.29	-3,626.12	1,577.15	1,424.71	152.44	10.346			
9,500.00	7,033.00	7,555.06	6,993.50	70.95	108.19	-90.67	-3,142.29	-3,626.12	1,479.42	1,327.10	152.32	9.713			
9,600.00	7,032.74	7,554.80	6,993.24	73.48	108.18	-90.62	-3,142.29	-3,626.12	1,382.00	1,229.78	152.23	9.079			
9,700.00	7,032.48	7,554.54	6,992.98	76.05	108.17	-90.58	-3,142.29	-3,626.12	1,284.99	1,132.79	152.19	8.443			
9,800.00	7,032.22	7,554.28	6,992.72	78.67	108.17	-90.53	-3,142.29	-3,626.12	1,188.46	1,036.22	152.25	7.806			
9,900.00	7,031.96	7,554.02	6,992.46	81.33	108.16	-90.48	-3,142.29	-3,626.12	1,092.57	940.12	152.45	7.167			
10,000.00	7,031.70	7,553.76	6,992.20	84.02	108.15	-90.44	-3,142.29	-3,626.12	997.48	844.61	152.87	6.525			
10,100.00	7,031.44	7,553.49	6,991.94	86.74	108.14	-90.39	-3,142.29	-3,626.12	903.45	749.82	153.63	5.881			
10,200.00	7,031.17	7,553.23	6,991.67	89.49	108.14	-90.34	-3,142.29	-3,626.12	810.85	655.92	154.93	5.234			
10,300.00	7,030.91	7,552.97	6,991.41	92.26	108.13	-90.30	-3,142.29	-3,626.12	720.24	563.16	157.07	4.585			
10,400.00	7,030.65	7,552.71	6,991.15	95.04	108.12	-90.25	-3,142.29	-3,626.12	632.46	471.95	160.50	3.941			
10,500.00	7,030.39	7,552.45	6,990.89	97.85	108.11	-90.21	-3,142.29	-3,626.12	548.87	383.03	165.84	3.310			
10,600.00	7,030.13	7,552.19	6,990.63	100.67	108.11	-90.16	-3,142.29	-3,626.12	471.72	297.90	173.82	2.714			
10,700.00	7,029.87	7,551.93	6,990.37	103.50	108.10	-90.11	-3,142.29	-3,626.12	404.69	219.76	184.93	2.188			
10,800.00	7,029.60	7,551.66	6,990.10	106.35	108.09	-90.07	-3,142.29	-3,626.12	353.60	155.26	198.34	1.783 Collision Risk Procedures Req.			
10,900.00	7,029.34	7,551.40	6,989.84	109.21	108.08	-90.02	-3,142.29	-3,626.12	326.02	115.59	210.43	1.549 Collision Risk Procedures Req.			
10,943.71	7,029.23	7,551.29	6,989.73	110.46	108.08	-90.00	-3,142.29	-3,626.12	323.08	109.17	213.91	1.510 Collision Risk Procedures Req., CC, ES			
11,000.00	7,029.08	7,551.14	6,989.58	112.08	108.08	-89.97	-3,142.29	-3,626.12	327.94	111.87	216.07	1.518 Collision Risk Procedures Req.			
11,100.00	7,028.82	7,550.88	6,989.32	114.96	108.07	-89.93	-3,142.29	-3,626.12	358.89	144.79	214.11	1.676 Collision Risk Procedures Req.			
11,200.00	7,028.56	7,550.62	6,989.06	117.85	108.06	-89.88	-3,142.29	-3,626.12	412.39	204.36	208.02	1.982 Collision Risk Procedures Req.			
11,300.00	7,028.30	7,550.36	6,988.80	120.74	108.05	-89.83	-3,142.29	-3,626.12	480.96	279.76	201.20	2.390			
11,400.00	7,028.04	7,550.10	6,988.54	123.65	108.05	-89.79	-3,142.29	-3,626.12	559.08	363.97	195.12	2.865			
11,500.00	7,027.77	7,549.83	6,988.27	126.56	108.04	-89.74	-3,142.29	-3,626.12	643.30	453.21	190.09	3.384			
11,600.00	7,027.51	7,549.57	6,988.01	129.48	108.03	-89.70	-3,142.29	-3,626.12	731.50	545.46	186.04	3.932			
11,700.00	7,027.25	7,549.31	6,987.75	132.40	108.02	-89.65	-3,142.29	-3,626.12	822.40	639.64	182.77	4.500			
11,800.00	7,026.99	7,549.05	6,987.49	135.33	108.02	-89.60	-3,142.29	-3,626.12	915.21	735.09	180.11	5.081			
11,900.00	7,026.73	7,548.79	6,987.23	138.26	108.01	-89.56	-3,142.29	-3,626.12	1,009.39	831.45	177.94	5.673			
12,000.00	7,026.47	7,548.53	6,986.97	141.20	108.00	-89.51	-3,142.29	-3,626.12	1,104.59	928.46	176.13	6.271			
12,100.00	7,026.21	7,548.27	6,986.71	144.15	107.99	-89.46	-3,142.29	-3,626.12	1,200.57	1,025.96	174.62	6.876			
12,200.00	7,025.94	7,548.00	6,986.44	147.09	107.99	-89.42	-3,142.29	-3,626.12	1,297.16	1,123.83	173.33	7.484			
12,300.00	7,025.68	7,547.74	6,986.18	150.05	107.98	-89.37	-3,142.29	-3,626.12	1,394.23	1,222.00	172.23	8.095			
12,400.00	7,025.42	7,547.48	6,985.92	153.00	107.97	-89.32	-3,142.29	-3,626.12	1,491.69	1,320.40	171.29	8.709			
12,500.00	7,025.16	7,547.22	6,985.66	155.96	107.96	-89.28	-3,142.29	-3,626.12	1,589.46	1,419.00	170.46	9.324			
12,600.00	7,024.90	7,546.96	6,985.40	158.92	107.96	-89.23	-3,142.29	-3,626.12	1,687.50	1,517.76	169.74	9.942			
12,700.00	7,024.64	7,546.70	6,985.14	161.89	107.95	-89.19	-3,142.29	-3,626.12	1,785.75	1,616.65	169.11	10.560			
12,800.00	7,024.38	7,546.43	6,984.88	164.86	107.94	-89.14	-3,142.29	-3,626.12	1,884.19	1,715.65	168.54	11.179			
12,900.00	7,024.11	7,546.17	6,984.61	167.83	107.93	-89.09	-3,142.29	-3,626.12	1,982.78	1,814.74	168.04	11.800			
13,000.00	7,023.85	7,545.91	6,984.35	170.80	107.93	-89.05	-3,142.29	-3,626.12	2,081.51	1,913.92	167.59	12.420			
13,100.00	7,023.59	7,545.65	6,984.09	173.78	107.92	-89.00	-3,142.29	-3,626.12	2,180.35	2,013.17	167.18	13.042			
13,200.00	7,023.33	7,545.39	6,983.83	176.75	107.91	-88.95	-3,142.29	-3,626.12	2,279.29	2,112.48	166.82	13.663			
13,300.00	7,023.07	7,545.13	6,983.57	179.74	107.90	-88.91	-3,142.29	-3,626.12	2,378.33	2,211.84	166.49	14.285			
13,400.00	7,022.81	7,544.87	6,983.31	182.72	107.90	-88.86	-3,142.29	-3,626.12	2,477.44	2,311.25	166.18	14.908			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 324P - OH - OH													Offset Well Error:	0.00 ft
Survey Program: 334-MWD, 5000-INCLINOMETER														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 490A - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 165-INCLINOMETER															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
1,400.00	1,379.82	1,305.49	1,305.32	5.39	39.65	25.82	-2,417.66	-1,112.82	2,503.24	2,458.59	44.65	56.064			
1,500.00	1,473.17	1,398.84	1,398.67	5.94	42.48	26.48	-2,417.66	-1,112.82	2,470.66	2,422.76	47.90	51.579			
1,600.00	1,565.21	1,490.89	1,490.71	6.53	45.28	27.23	-2,417.66	-1,112.82	2,435.25	2,384.12	51.13	47.633			
1,655.87	1,616.03	1,541.44	1,541.26	6.88	46.81	27.70	-2,416.56	-1,112.82	2,413.28	2,360.37	52.91	45.612			
1,700.00	1,655.99	1,578.66	1,578.48	7.16	47.94	27.89	-2,416.59	-1,112.82	2,396.40	2,342.16	54.24	44.185			
1,800.00	1,746.53	1,663.18	1,662.99	7.80	50.51	28.33	-2,416.83	-1,112.82	2,358.42	2,301.18	57.25	41.195			
1,900.00	1,837.08	1,747.94	1,747.74	8.46	53.08	28.78	-2,417.32	-1,112.82	2,320.83	2,260.55	60.28	38.499			
2,000.00	1,927.62	1,853.41	1,853.12	9.12	56.29	29.36	-2,417.66	-1,112.82	2,283.18	2,219.23	63.95	35.703			
2,100.00	2,018.16	1,943.96	1,943.66	9.79	59.04	29.88	-2,417.66	-1,112.82	2,245.43	2,178.26	67.18	33.427			
2,200.00	2,108.71	2,034.50	2,034.21	10.47	61.78	30.41	-2,417.66	-1,112.82	2,207.86	2,137.45	70.41	31.357			
2,300.00	2,199.25	2,119.18	2,118.86	11.15	64.36	30.95	-2,416.02	-1,112.82	2,169.07	2,095.58	73.48	29.518			
2,400.00	2,289.80	2,202.39	2,202.06	11.83	66.88	31.47	-2,416.45	-1,112.82	2,132.28	2,055.76	76.52	27.866			
2,500.00	2,380.34	2,285.93	2,285.59	12.52	69.42	32.00	-2,417.23	-1,112.82	2,096.00	2,016.43	79.57	26.341			
2,600.00	2,470.88	2,396.80	2,396.38	13.21	72.79	32.74	-2,417.66	-1,112.82	2,059.47	1,976.03	83.45	24.680			
2,700.00	2,561.43	2,487.35	2,486.93	13.90	75.54	33.37	-2,417.66	-1,112.82	2,022.90	1,936.17	86.73	23.324			
2,800.00	2,651.97	2,577.51	2,577.08	14.59	78.28	34.04	-2,416.57	-1,112.82	1,985.65	1,895.64	90.01	22.060			
2,900.00	2,742.52	2,663.24	2,662.80	15.29	80.88	34.68	-2,416.71	-1,112.82	1,949.70	1,856.53	93.17	20.927			
3,000.00	2,833.06	2,749.21	2,748.77	15.98	83.49	35.34	-2,417.12	-1,112.82	1,914.23	1,817.89	96.34	19.869			
3,100.00	2,923.60	2,849.62	2,849.10	16.68	86.54	36.13	-2,417.66	-1,112.82	1,879.09	1,779.14	99.95	18.800			
3,200.00	3,014.15	2,940.17	2,939.65	17.38	89.29	36.88	-2,417.66	-1,112.82	1,843.83	1,740.55	103.28	17.852			
3,300.00	3,104.69	3,030.71	3,030.19	18.08	92.04	37.66	-2,417.66	-1,112.82	1,808.88	1,702.25	106.62	16.965			
3,400.00	3,195.24	3,121.25	3,120.74	18.78	94.79	38.47	-2,417.66	-1,112.82	1,774.25	1,664.27	109.98	16.133			
3,500.00	3,285.78	3,211.80	3,211.28	19.48	97.54	39.31	-2,417.66	-1,112.82	1,739.97	1,626.62	113.34	15.351			
3,600.00	3,376.32	3,302.34	3,301.82	20.18	100.29	40.17	-2,417.66	-1,112.82	1,706.05	1,589.33	116.72	14.616			
3,700.00	3,466.87	3,392.89	3,392.37	20.88	103.04	41.08	-2,417.66	-1,112.82	1,672.53	1,552.42	120.11	13.925			
3,800.00	3,557.41	3,471.00	3,470.33	21.59	105.41	41.88	-2,417.66	-1,112.82	1,639.47	1,516.31	123.16	13.312			
3,900.00	3,647.96	3,471.00	3,470.33	22.29	105.41	41.88	-2,417.66	-1,112.82	1,610.06	1,486.30	123.76	13.010			
4,000.00	3,738.50	3,471.00	3,470.33	23.00	105.41	41.88	-2,417.66	-1,112.82	1,586.41	1,462.45	123.96	12.798			
4,100.00	3,829.05	3,471.00	3,470.33	23.70	105.41	41.88	-2,417.66	-1,112.82	1,568.80	1,445.07	123.73	12.679			
4,200.00	3,919.59	3,471.00	3,470.33	24.41	105.41	41.88	-2,417.66	-1,112.82	1,557.42	1,434.37	123.05	12.657 SF			
4,300.00	4,010.13	3,471.00	3,470.33	25.11	105.41	41.88	-2,417.66	-1,112.82	1,552.41	1,430.51	121.90	12.735 ES			
4,327.89	4,035.39	3,471.00	3,470.33	25.31	105.41	41.88	-2,417.66	-1,112.82	1,552.16	1,430.66	121.50	12.775 CC			
4,400.00	4,100.68	3,471.00	3,470.33	25.82	105.41	41.88	-2,417.66	-1,112.82	1,553.83	1,433.54	120.29	12.917			
4,500.00	4,191.22	3,471.00	3,470.33	26.52	105.41	41.88	-2,417.66	-1,112.82	1,561.67	1,443.42	118.25	13.206			
4,600.00	4,281.77	3,471.00	3,470.33	27.23	105.41	41.88	-2,417.66	-1,112.82	1,575.83	1,460.01	115.82	13.606			
4,700.00	4,372.31	3,471.00	3,470.33	27.94	105.41	41.88	-2,417.66	-1,112.82	1,596.14	1,483.09	113.05	14.119			
4,800.00	4,462.85	3,471.00	3,470.33	28.64	105.41	41.88	-2,417.66	-1,112.82	1,622.37	1,512.36	110.01	14.747			
4,900.00	4,553.40	3,471.00	3,470.33	29.35	105.41	41.88	-2,417.66	-1,112.82	1,654.24	1,547.48	106.76	15.495			
5,000.00	4,643.94	3,471.00	3,470.33	30.06	105.41	41.88	-2,417.66	-1,112.82	1,691.43	1,588.05	103.38	16.362			
5,100.00	4,734.49	3,471.00	3,470.33	30.76	105.41	41.88	-2,417.66	-1,112.82	1,733.60	1,633.68	99.91	17.351			
5,200.00	4,825.03	3,471.00	3,470.33	31.47	105.41	41.88	-2,417.66	-1,112.82	1,780.39	1,683.95	96.43	18.462			
5,300.00	4,915.57	3,471.00	3,470.33	32.18	105.41	41.88	-2,417.66	-1,112.82	1,831.45	1,738.46	92.98	19.696			
5,400.00	5,006.12	3,471.00	3,470.33	32.89	105.41	41.88	-2,417.66	-1,112.82	1,886.43	1,796.82	89.61	21.052			
5,500.00	5,096.66	3,471.00	3,470.33	33.59	105.41	41.88	-2,417.66	-1,112.82	1,945.01	1,858.67	86.34	22.528			
5,600.00	5,187.21	3,471.00	3,470.33	34.30	105.41	41.88	-2,417.66	-1,112.82	2,006.86	1,923.66	83.20	24.121			
5,700.00	5,277.75	3,471.00	3,470.33	35.01	105.41	41.88	-2,417.66	-1,112.82	2,071.69	1,991.48	80.21	25.829			
5,800.00	5,368.29	3,471.00	3,470.33	35.72	105.41	41.88	-2,417.66	-1,112.82	2,139.23	2,061.85	77.38	27.646			
5,900.00	5,458.84	3,471.00	3,470.33	36.43	105.41	41.88	-2,417.66	-1,112.82	2,209.24	2,134.52	74.72	29.568			
6,000.00	5,549.38	3,471.00	3,470.33	37.14	105.41	41.88	-2,417.66	-1,112.82	2,281.48	2,209.25	72.23	31.588			
6,100.00	5,639.93	3,471.00	3,470.33	37.84	105.41	41.88	-2,417.66	-1,112.82	2,355.75	2,285.84	69.91	33.697			
6,200.00	5,730.47	3,471.00	3,470.33	38.55	105.41	41.88	-2,417.66	-1,112.82	2,431.87	2,364.11	67.76	35.888			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design NEBU 604 Pad - NEBU 490A - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 165-INCLINOMETER													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
6,300.00	5,821.02	3,471.00	3,470.33	39.26	105.41	41.88	-2,417.66	-1,112.82	2,509.67	2,443.88	65.78	38.151		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 498 - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 100-UNKNOWN															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	168.96	-1,676.50	326.97	1,709.53						
100.00	100.00	29.90	29.90	0.26	0.60	168.96	-1,676.50	326.97	1,708.09	1,707.23	0.86	1,990.567			
200.00	200.00	129.90	129.90	0.62	3.20	168.96	-1,676.50	326.97	1,708.09	1,704.27	3.81	447.791			
300.00	300.00	229.90	229.90	0.98	7.20	168.96	-1,676.50	326.97	1,708.09	1,699.91	8.17	208.993			
400.00	400.00	329.90	329.90	1.34	11.20	168.96	-1,676.50	326.97	1,708.09	1,695.56	12.53	136.304			
500.00	499.98	429.88	429.88	1.68	15.20	-12.86	-1,676.50	326.97	1,706.39	1,689.51	16.87	101.130			
600.00	599.84	529.74	529.74	2.02	19.19	-12.92	-1,676.50	326.97	1,701.28	1,680.08	21.21	80.229			
700.00	699.45	629.35	629.35	2.36	23.17	-13.03	-1,676.50	326.97	1,692.79	1,667.25	25.54	66.289			
800.00	798.70	728.60	728.60	2.72	27.14	-13.18	-1,676.50	326.97	1,680.92	1,651.06	29.86	56.293			
900.00	897.47	827.37	827.37	3.10	31.09	-13.37	-1,676.50	326.97	1,665.68	1,631.51	34.17	48.748			
1,000.00	995.62	925.53	925.53	3.50	35.02	-13.61	-1,676.50	326.97	1,647.11	1,608.65	38.46	42.827			
1,100.00	1,093.06	1,022.96	1,022.96	3.93	38.92	-13.90	-1,676.50	326.97	1,625.23	1,582.50	42.73	38.038			
1,200.00	1,189.64	1,119.55	1,119.55	4.38	42.78	-14.25	-1,676.50	326.97	1,600.08	1,553.11	46.97	34.069			
1,300.00	1,285.27	1,215.17	1,215.17	4.87	46.61	-14.67	-1,676.50	326.97	1,571.69	1,520.52	51.17	30.714			
1,400.00	1,379.82	1,309.72	1,309.72	5.39	50.39	-15.14	-1,676.50	326.97	1,540.12	1,484.78	55.34	27.829			
1,500.00	1,473.17	1,403.07	1,403.07	5.94	54.12	-15.70	-1,676.50	326.97	1,505.42	1,445.94	59.47	25.313			
1,600.00	1,565.21	1,495.12	1,495.12	6.53	57.80	-16.34	-1,676.50	326.97	1,467.64	1,404.08	63.56	23.092			
1,655.87	1,616.03	1,545.93	1,545.93	6.88	59.84	-16.73	-1,676.50	326.97	1,445.22	1,379.40	65.82	21.957			
1,700.00	1,655.99	1,585.89	1,585.89	7.16	61.44	-16.95	-1,676.50	326.97	1,427.16	1,359.56	67.60	21.112			
1,800.00	1,746.53	1,676.43	1,676.43	7.80	65.06	-17.46	-1,676.50	326.97	1,386.28	1,314.65	71.63	19.353			
1,900.00	1,837.08	1,766.98	1,766.98	8.46	68.68	-17.99	-1,676.50	326.97	1,345.51	1,269.83	75.67	17.780			
2,000.00	1,927.62	1,857.52	1,857.52	9.12	72.30	-18.56	-1,676.50	326.97	1,304.84	1,225.12	79.73	16.367			
2,100.00	2,018.16	1,948.07	1,948.07	9.79	75.92	-19.17	-1,676.50	326.97	1,264.29	1,180.51	83.78	15.090			
2,200.00	2,108.71	2,038.61	2,038.61	10.47	79.54	-19.82	-1,676.50	326.97	1,223.87	1,136.02	87.85	13.931			
2,300.00	2,199.25	2,129.15	2,129.15	11.15	83.17	-20.50	-1,676.50	326.97	1,183.59	1,091.66	91.93	12.875			
2,400.00	2,289.80	2,219.70	2,219.70	11.83	86.79	-21.24	-1,676.50	326.97	1,143.46	1,047.45	96.02	11.909			
2,500.00	2,380.34	2,310.24	2,310.24	12.52	90.41	-22.03	-1,676.50	326.97	1,103.51	1,003.40	100.11	11.023			
2,600.00	2,470.88	2,400.79	2,400.79	13.21	94.03	-22.87	-1,676.50	326.97	1,063.76	959.54	104.22	10.207			
2,700.00	2,561.43	2,491.33	2,491.33	13.90	97.65	-23.78	-1,676.50	326.97	1,024.22	915.88	108.34	9.454			
2,800.00	2,651.97	2,581.87	2,581.87	14.59	101.27	-24.76	-1,676.50	326.97	984.92	872.44	112.47	8.757			
2,900.00	2,742.52	2,672.42	2,672.42	15.29	104.90	-25.82	-1,676.50	326.97	945.89	829.27	116.62	8.111			
3,000.00	2,833.06	2,762.96	2,762.96	15.98	108.52	-26.97	-1,676.50	326.97	907.17	786.39	120.79	7.511			
3,100.00	2,923.60	2,853.51	2,853.51	16.68	112.14	-28.21	-1,676.50	326.97	868.80	743.83	124.97	6.952			
3,200.00	3,014.15	2,944.05	2,944.05	17.38	115.76	-29.57	-1,676.50	326.97	830.83	701.65	129.18	6.432			
3,300.00	3,104.69	3,034.60	3,034.60	18.08	119.38	-31.04	-1,676.50	326.97	793.31	659.89	133.41	5.946			
3,400.00	3,195.24	3,125.14	3,125.14	18.78	123.01	-32.66	-1,676.50	326.97	756.31	618.63	137.67	5.493			
3,500.00	3,285.78	3,215.68	3,215.68	19.48	126.63	-34.43	-1,676.50	326.97	719.91	577.94	141.97	5.071			
3,600.00	3,376.32	3,306.23	3,306.23	20.18	130.25	-36.37	-1,676.50	326.97	684.21	537.90	146.31	4.676			
3,700.00	3,466.87	3,385.01	3,385.01	20.88	133.40	-38.22	-1,676.50	326.97	649.43	499.17	150.25	4.322			
3,800.00	3,557.41	3,385.01	3,385.01	21.59	133.40	-38.22	-1,676.50	326.97	623.83	474.31	149.52	4.172 SF			
3,900.00	3,647.96	3,385.01	3,385.01	22.29	133.40	-38.22	-1,676.50	326.97	613.65	468.38	145.27	4.224 ES			
3,912.96	3,659.69	3,385.01	3,385.01	22.38	133.40	-38.22	-1,676.50	326.97	613.51	469.06	144.46	4.247 CC			
4,000.00	3,738.50	3,385.01	3,385.01	23.00	133.40	-38.22	-1,676.50	326.97	619.66	482.13	137.53	4.506			
4,100.00	3,829.05	3,385.01	3,385.01	23.70	133.40	-38.22	-1,676.50	326.97	641.39	514.27	127.12	5.046			
4,200.00	3,919.59	3,385.01	3,385.01	24.41	133.40	-38.22	-1,676.50	326.97	677.34	562.01	115.33	5.873			
4,300.00	4,010.13	3,385.01	3,385.01	25.11	133.40	-38.22	-1,676.50	326.97	725.40	621.97	103.43	7.013			
4,400.00	4,100.68	3,385.01	3,385.01	25.82	133.40	-38.22	-1,676.50	326.97	783.33	691.02	92.31	8.486			
4,500.00	4,191.22	3,385.01	3,385.01	26.52	133.40	-38.22	-1,676.50	326.97	849.13	766.66	82.47	10.297			
4,600.00	4,281.77	3,385.01	3,385.01	27.23	133.40	-38.22	-1,676.50	326.97	921.10	847.02	74.08	12.434			
4,700.00	4,372.31	3,385.01	3,385.01	27.94	133.40	-38.22	-1,676.50	326.97	997.91	930.78	67.13	14.864			
4,800.00	4,462.85	3,385.01	3,385.01	28.64	133.40	-38.22	-1,676.50	326.97	1,078.54	1,017.00	61.53	17.528			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 498 - OH - OH													Offset Well Error:	0.00 ft
Survey Program: 100-UNKNOWN														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,900.00	4,553.40	3,385.01	3,385.01	29.35	133.40	-38.22	-1,676.50	326.97	1,162.17	1,105.05	57.12	20.346		
5,000.00	4,643.94	3,385.01	3,385.01	30.06	133.40	-38.22	-1,676.50	326.97	1,248.22	1,194.49	53.73	23.230		
5,100.00	4,734.49	3,385.01	3,385.01	30.76	133.40	-38.22	-1,676.50	326.97	1,336.21	1,285.00	51.21	26.092		
5,200.00	4,825.03	3,385.01	3,385.01	31.47	133.40	-38.22	-1,676.50	326.97	1,425.79	1,376.39	49.40	28.863		
5,300.00	4,915.57	3,385.01	3,385.01	32.18	133.40	-38.22	-1,676.50	326.97	1,516.67	1,468.51	48.16	31.493		
5,400.00	5,006.12	3,385.01	3,385.01	32.89	133.40	-38.22	-1,676.50	326.97	1,608.63	1,561.26	47.37	33.961		
5,500.00	5,096.66	3,385.01	3,385.01	33.59	133.40	-38.22	-1,676.50	326.97	1,701.50	1,654.57	46.93	36.259		
5,600.00	5,187.21	3,385.01	3,385.01	34.30	133.40	-38.22	-1,676.50	326.97	1,795.13	1,748.38	46.75	38.398		
5,700.00	5,277.75	3,385.01	3,385.01	35.01	133.40	-38.22	-1,676.50	326.97	1,889.42	1,842.65	46.78	40.394		
5,800.00	5,368.29	3,385.01	3,385.01	35.72	133.40	-38.22	-1,676.50	326.97	1,984.27	1,937.32	46.95	42.264		
5,900.00	5,458.84	3,385.01	3,385.01	36.43	133.40	-38.22	-1,676.50	326.97	2,079.60	2,032.36	47.23	44.027		
6,000.00	5,549.38	3,385.01	3,385.01	37.14	133.40	-38.22	-1,676.50	326.97	2,175.35	2,127.75	47.60	45.701		
6,100.00	5,639.93	3,385.01	3,385.01	37.84	133.40	-38.22	-1,676.50	326.97	2,271.46	2,223.44	48.02	47.301		
6,200.00	5,730.47	3,385.01	3,385.01	38.55	133.40	-38.22	-1,676.50	326.97	2,367.90	2,319.42	48.48	48.838		
6,300.00	5,821.02	3,385.01	3,385.01	39.26	133.40	-38.22	-1,676.50	326.97	2,464.62	2,415.65	48.98	50.324		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 4H - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 253-MWD+HDGM, 3848-MWD+HDGM, 6629-MWD+HDGM, 7703-MWD+HDGM															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	11.90	207.40	43.70	211.96						
100.00	100.00	98.30	98.30	0.26	0.16	11.88	207.46	43.64	212.00	211.59	0.42	507.190	CC		
200.00	200.00	198.09	198.09	0.62	0.32	11.83	207.64	43.48	212.15	211.21	0.94	226.420			
300.00	300.00	297.91	297.91	0.98	0.57	11.73	207.95	43.19	212.39	210.84	1.54	137.491			
400.00	400.00	398.52	398.52	1.34	0.93	11.55	208.30	42.56	212.60	210.34	2.26	93.953			
404.45	404.45	403.02	403.02	1.35	0.94	-170.27	208.31	42.51	212.61	210.31	2.29	92.672	ES		
500.00	499.98	494.41	494.39	1.68	1.27	-170.76	209.07	41.04	214.82	211.88	2.95	72.837			
600.00	599.84	589.80	589.67	2.02	1.62	-171.80	212.61	38.34	223.11	219.48	3.63	61.401			
700.00	699.45	683.46	683.08	2.36	1.96	-173.30	217.95	34.11	236.65	232.33	4.32	54.744			
800.00	798.70	777.44	776.61	2.72	2.30	-174.98	225.56	28.97	256.01	250.99	5.02	51.012			
900.00	897.47	869.06	867.60	3.10	2.64	-176.68	234.41	23.02	280.42	274.71	5.71	49.118			
1,000.00	995.62	957.39	955.03	3.50	2.98	-178.35	244.90	16.16	310.48	304.09	6.39	48.605	SF		
1,100.00	1,093.06	1,043.73	1,040.14	3.93	3.33	-179.97	257.10	8.26	346.16	339.11	7.06	49.040			
1,200.00	1,189.64	1,126.96	1,121.81	4.38	3.67	-178.50	270.47	-0.61	387.13	379.41	7.72	50.170			
1,300.00	1,285.27	1,210.71	1,203.59	4.87	4.03	177.03	285.46	-10.70	433.13	424.75	8.38	51.703			
1,400.00	1,379.82	1,291.71	1,282.51	5.39	4.39	175.75	300.42	-21.10	482.96	473.92	9.03	53.457			
1,500.00	1,473.17	1,366.89	1,355.43	5.94	4.73	174.67	315.61	-31.28	537.41	527.75	9.66	55.650			
1,600.00	1,565.21	1,445.51	1,431.40	6.53	5.11	173.58	332.10	-42.97	595.60	585.28	10.31	57.749			
1,655.87	1,616.03	1,490.01	1,474.32	6.88	5.32	172.97	341.45	-50.14	629.43	618.74	10.69	58.855			
1,700.00	1,655.99	1,524.90	1,507.93	7.16	5.49	172.58	348.74	-56.03	656.51	645.52	10.99	59.738			
1,800.00	1,746.53	1,606.26	1,586.25	7.80	5.90	171.72	365.51	-70.29	717.76	706.09	11.68	61.467			
1,900.00	1,837.08	1,698.50	1,675.22	8.46	6.36	170.90	383.60	-86.56	778.31	765.86	12.46	62.483			
2,000.00	1,927.62	1,804.44	1,777.97	9.12	6.87	170.14	401.86	-104.82	836.96	823.62	13.34	62.732			
2,100.00	2,018.16	1,884.42	1,855.74	9.79	7.26	169.65	414.66	-118.37	894.59	880.55	14.04	63.721			
2,200.00	2,108.71	1,965.10	1,934.24	10.47	7.64	169.24	427.55	-131.81	952.22	937.48	14.75	64.576			
2,300.00	2,199.25	2,046.03	2,012.97	11.15	8.03	168.87	440.55	-145.32	1,009.94	994.48	15.46	65.332			
2,400.00	2,289.80	2,133.94	2,098.53	11.83	8.46	168.52	454.48	-159.93	1,067.51	1,051.29	16.23	65.783			
2,500.00	2,380.34	2,210.59	2,173.27	12.52	8.82	168.29	466.57	-171.90	1,124.91	1,108.00	16.91	66.522			
2,600.00	2,470.88	2,278.62	2,239.61	13.21	9.15	168.16	477.99	-181.71	1,183.00	1,165.47	17.52	67.508			
2,700.00	2,561.43	2,344.44	2,303.71	13.90	9.46	168.09	490.05	-190.51	1,242.17	1,224.06	18.12	68.566			
2,800.00	2,651.97	2,418.00	2,375.28	14.59	9.81	168.04	504.19	-199.96	1,302.03	1,283.26	18.77	69.371			
2,900.00	2,742.52	2,488.98	2,444.26	15.29	10.16	168.01	518.27	-209.01	1,362.35	1,342.95	19.40	70.218			
3,000.00	2,833.06	2,576.03	2,528.83	15.98	10.58	167.97	535.65	-220.15	1,422.81	1,402.64	20.17	70.552			
3,100.00	2,923.60	2,658.51	2,609.07	16.68	10.98	167.95	551.70	-230.48	1,482.81	1,461.91	20.89	70.965			
3,200.00	3,014.15	2,741.57	2,689.89	17.38	11.38	167.93	567.82	-240.79	1,542.76	1,521.13	21.63	71.330			
3,300.00	3,104.69	2,851.21	2,796.87	18.08	11.89	167.89	587.56	-254.40	1,601.46	1,578.88	22.57	70.941			
3,400.00	3,195.24	2,964.95	2,908.36	18.78	12.41	167.88	605.67	-267.70	1,658.26	1,634.72	23.54	70.441			
3,500.00	3,285.78	3,037.50	2,979.57	19.48	12.74	167.91	617.35	-275.30	1,715.24	1,691.05	24.19	70.918			
3,600.00	3,376.32	3,137.77	3,078.06	20.18	13.18	167.99	633.48	-284.85	1,772.11	1,747.08	25.04	70.778			
3,700.00	3,466.87	3,253.94	3,291.72	20.88	14.07	168.16	659.96	-303.57	1,826.07	1,799.39	26.68	68.437			
3,800.00	3,557.41	3,354.87	3,392.02	21.59	14.45	168.23	667.97	-311.41	1,875.81	1,848.30	27.51	68.189			
3,900.00	3,647.96	3,456.85	3,473.52	22.29	14.76	168.30	674.28	-317.69	1,925.35	1,897.13	28.22	68.237			
4,000.00	3,738.50	3,560.75	3,546.91	23.00	15.04	168.33	680.28	-323.95	1,975.36	1,946.49	28.87	68.417			
4,100.00	3,829.05	3,666.00	3,621.51	23.70	15.34	168.34	686.77	-331.32	2,025.98	1,996.44	29.54	68.581			
4,200.00	3,919.59	3,752.68	3,687.53	24.41	15.50	168.33	692.94	-338.43	2,077.23	2,047.19	30.04	69.155			
4,300.00	4,010.13	3,821.87	3,755.95	25.11	15.68	168.31	699.83	-346.03	2,129.15	2,098.60	30.54	69.707			
4,400.00	4,100.68	3,848.00	3,781.77	25.82	15.74	168.30	702.57	-348.97	2,182.24	2,151.43	30.81	70.831			
4,500.00	4,191.22	3,898.68	3,831.71	26.52	15.80	168.29	708.91	-354.79	2,236.79	2,205.67	31.12	71.886			
4,600.00	4,281.77	3,938.00	3,870.25	27.23	15.85	168.28	715.18	-359.43	2,293.58	2,262.21	31.37	73.123			
4,700.00	4,372.31	3,968.65	3,900.17	27.94	15.90	168.27	720.67	-363.11	2,351.99	2,320.42	31.57	74.501			
4,800.00	4,462.85	4,027.00	3,956.97	28.64	16.00	168.26	732.01	-370.24	2,411.80	2,379.90	31.90	75.605			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design NEBU 604 Pad - NEBU 604 4H - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 253-MWD+HDGM, 3848-MWD+HDGM, 6629-MWD+HDGM, 7703-MWD+HDGM													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,900.00	4,553.40	4,063.97	3,992.84	29.35	16.06	168.25	739.65	-374.90	2,472.56	2,440.44	32.13	76.966		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 6H - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 249-MWD+HDGM, 3848-MWD+HDGM, 6540-MWD+HDGM, 7613-MWD+HDGM															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	10.57	179.41	33.46	182.51						
100.00	100.00	99.44	99.44	0.26	0.16	10.60	179.14	33.51	182.25	181.83	0.42	433.905			
200.00	200.00	200.39	200.39	0.62	0.32	10.69	178.31	33.65	181.47	180.53	0.94	192.919			
300.00	300.00	300.63	300.62	0.98	0.59	10.87	177.03	33.99	180.27	178.71	1.56	115.415			
400.00	400.00	401.34	401.31	1.34	0.95	11.29	175.53	35.03	179.02	176.74	2.28	78.480			
459.11	459.10	461.28	461.23	1.54	1.16	-170.23	174.28	35.80	178.55	175.86	2.70	66.182 CC			
500.00	499.98	502.76	502.70	1.68	1.31	-170.16	173.30	36.02	178.77	175.79	2.99	59.877 ES			
600.00	599.84	603.71	603.61	2.02	1.67	-170.64	170.80	34.85	181.27	177.60	3.68	49.290			
700.00	699.45	704.89	704.66	2.36	2.03	-172.21	168.24	30.54	186.64	182.27	4.37	42.666			
800.00	798.70	801.46	800.97	2.72	2.37	-174.54	166.53	23.77	195.99	190.92	5.07	38.676			
900.00	897.47	898.18	897.25	3.10	2.71	-177.42	166.23	14.57	210.34	204.57	5.77	36.448			
1,000.00	995.62	994.73	993.12	3.50	3.06	179.47	166.65	3.17	229.29	222.80	6.49	35.349			
1,100.00	1,093.06	1,089.79	1,087.32	3.93	3.41	176.52	167.72	-9.58	252.90	245.70	7.21	35.081 SF			
1,200.00	1,189.64	1,187.41	1,183.83	4.38	3.79	173.69	168.53	-24.19	280.25	272.29	7.96	35.213			
1,300.00	1,285.27	1,285.14	1,280.34	4.87	4.18	171.24	168.41	-39.61	310.57	301.85	8.73	35.596			
1,400.00	1,379.82	1,382.22	1,376.23	5.39	4.57	169.29	167.17	-54.70	343.41	333.90	9.50	36.139			
1,500.00	1,473.17	1,478.58	1,471.39	5.94	4.96	167.74	165.27	-69.70	379.07	368.78	10.29	36.839			
1,600.00	1,565.21	1,575.84	1,567.39	6.53	5.36	166.43	162.09	-85.03	416.88	405.78	11.10	37.508			
1,655.87	1,616.03	1,629.30	1,620.16	6.88	5.58	165.84	159.90	-93.31	438.96	427.41	11.55	38.004			
1,700.00	1,655.99	1,671.12	1,661.44	7.16	5.75	165.53	158.04	-99.70	456.65	444.74	11.91	38.357			
1,800.00	1,746.53	1,760.96	1,750.16	7.80	6.13	164.95	153.92	-113.24	496.61	483.93	12.68	39.159			
1,900.00	1,837.08	1,852.63	1,840.73	8.46	6.51	164.47	150.19	-126.91	537.03	523.55	13.48	39.853			
2,000.00	1,927.62	1,946.66	1,933.70	9.12	6.89	164.11	146.11	-140.34	577.12	562.83	14.29	40.393			
2,100.00	2,018.16	2,037.10	2,023.12	9.79	7.27	163.80	142.00	-153.31	617.04	601.96	15.08	40.906			
2,200.00	2,108.71	2,128.03	2,112.95	10.47	7.65	163.48	137.99	-166.82	657.21	641.32	15.89	41.355			
2,300.00	2,199.25	2,219.28	2,203.08	11.15	8.03	163.19	133.97	-180.47	697.43	680.72	16.71	41.746			
2,400.00	2,289.80	2,301.71	2,284.53	11.83	8.38	162.98	130.79	-192.73	738.13	720.67	17.46	42.273			
2,500.00	2,380.34	2,397.61	2,379.31	12.52	8.78	162.76	127.82	-206.99	779.52	761.20	18.31	42.567			
2,600.00	2,470.88	2,488.47	2,469.19	13.21	9.15	162.61	124.46	-219.88	820.22	801.09	19.13	42.883			
2,700.00	2,561.43	2,583.10	2,562.88	13.90	9.54	162.51	121.13	-232.84	860.97	841.00	19.97	43.118			
2,800.00	2,651.97	2,671.03	2,649.87	14.59	9.91	162.40	117.83	-245.18	901.60	880.83	20.76	43.421			
2,900.00	2,742.52	2,758.04	2,735.91	15.29	10.27	162.28	114.90	-257.80	942.67	921.11	21.56	43.728			
3,000.00	2,833.06	2,853.29	2,830.05	15.98	10.67	162.14	111.69	-271.93	983.82	961.40	22.42	43.887			
3,100.00	2,923.60	2,948.30	2,924.00	16.68	11.07	162.03	108.12	-285.61	1,024.53	1,001.26	23.27	44.020			
3,200.00	3,014.15	3,046.87	3,021.63	17.38	11.47	161.99	104.19	-298.65	1,064.77	1,040.62	24.15	44.090			
3,300.00	3,104.69	3,137.77	3,111.85	18.08	11.84	162.04	100.71	-309.20	1,104.78	1,079.83	24.96	44.269			
3,400.00	3,195.24	3,245.73	3,219.12	18.78	12.26	162.15	96.11	-320.46	1,144.13	1,118.26	25.87	44.218			
3,500.00	3,285.78	3,348.48	3,321.22	19.48	12.66	162.27	90.53	-330.51	1,182.28	1,155.53	26.75	44.195			
3,600.00	3,376.32	3,441.64	3,413.83	20.18	13.02	162.39	85.24	-339.15	1,220.11	1,192.55	27.56	44.273			
3,700.00	3,466.87	3,534.17	3,505.88	20.88	13.38	162.54	80.18	-347.03	1,257.96	1,229.60	28.36	44.362			
3,800.00	3,557.41	3,630.20	3,601.46	21.59	13.74	162.70	74.93	-354.82	1,295.72	1,266.55	29.17	44.414			
3,900.00	3,647.96	3,729.44	3,700.25	22.29	14.11	162.89	69.24	-362.15	1,333.09	1,303.09	30.01	44.427			
4,000.00	3,738.50	3,826.92	3,797.35	23.00	14.38	163.10	63.40	-368.50	1,370.06	1,339.34	30.72	44.599			
4,100.00	3,829.05	3,920.91	3,890.96	23.70	14.45	163.28	57.55	-374.74	1,406.84	1,375.60	31.24	45.034			
4,200.00	3,919.59	3,992.57	3,962.18	24.41	14.50	163.34	53.09	-381.14	1,444.18	1,412.51	31.67	45.603			
4,300.00	4,010.13	4,059.03	4,028.02	25.11	14.55	163.31	49.61	-389.50	1,483.14	1,451.06	32.09	46.222			
4,400.00	4,100.68	4,126.52	4,094.76	25.82	14.62	163.23	46.98	-399.20	1,523.67	1,491.16	32.51	46.861			
4,500.00	4,191.22	4,207.00	4,174.26	26.52	14.70	163.12	44.67	-411.52	1,565.31	1,532.29	33.01	47.412			
4,600.00	4,281.77	4,283.38	4,249.66	27.23	14.79	163.02	43.01	-423.56	1,607.66	1,574.16	33.50	47.988			
4,700.00	4,372.31	4,367.04	4,332.28	27.94	14.90	162.91	41.67	-436.64	1,650.52	1,616.49	34.03	48.498			
4,800.00	4,462.85	4,455.00	4,419.27	28.64	15.01	162.84	40.69	-449.69	1,693.63	1,659.04	34.59	48.963			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 6H - OH - OH													Offset Well Error:	0.00 ft
Survey Program: 249-MWD+HDGM, 3848-MWD+HDGM, 6540-MWD+HDGM, 7613-MWD+HDGM														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
4,900.00	4,553.40	4,544.52	4,507.82	29.35	15.13	162.78	39.82	-462.72	1,736.81	1,701.64	35.16	49.392		
5,000.00	4,643.94	4,636.45	4,598.67	30.06	15.27	162.70	38.74	-476.76	1,779.97	1,744.20	35.76	49.769		
5,100.00	4,734.49	4,744.85	4,705.84	30.76	15.44	162.61	37.01	-492.95	1,822.69	1,786.22	36.47	49.976		
5,200.00	4,825.03	4,834.78	4,794.79	31.47	15.59	162.55	35.15	-506.05	1,864.92	1,827.85	37.08	50.300		
5,300.00	4,915.57	4,931.33	4,890.21	32.18	15.77	162.47	32.91	-520.65	1,907.05	1,869.32	37.73	50.538		
5,400.00	5,006.12	5,040.37	4,997.97	32.89	15.98	162.38	29.61	-536.89	1,948.50	1,910.02	38.48	50.640		
5,500.00	5,096.66	5,133.40	5,089.97	33.59	16.16	162.32	26.41	-550.39	1,989.51	1,950.38	39.13	50.843		
5,600.00	5,187.21	5,221.79	5,177.20	34.30	16.35	162.23	23.22	-564.28	2,030.63	1,990.86	39.77	51.058		
5,700.00	5,277.75	5,323.82	5,277.70	35.01	16.58	162.10	19.12	-581.41	2,071.67	2,031.15	40.52	51.131		
5,800.00	5,368.29	5,420.27	5,372.66	35.72	16.81	161.97	14.53	-597.65	2,112.05	2,070.81	41.24	51.214		
5,900.00	5,458.84	5,507.92	5,458.80	36.43	17.03	161.83	10.34	-613.28	2,152.65	2,110.73	41.92	51.351		
6,000.00	5,549.38	5,597.23	5,546.42	37.14	17.27	161.67	5.87	-630.02	2,193.29	2,150.66	42.63	51.453		
6,100.00	5,639.93	5,693.06	5,640.26	37.84	17.54	161.49	0.96	-648.75	2,234.02	2,190.62	43.39	51.481		
6,200.00	5,730.47	5,792.77	5,737.85	38.55	17.83	161.29	-4.67	-668.45	2,274.36	2,230.16	44.20	51.453		
6,300.00	5,821.02	5,891.83	5,834.57	39.26	18.14	161.07	-10.82	-688.94	2,314.45	2,269.43	45.02	51.404		
6,400.00	5,911.56	5,987.44	5,927.78	39.97	18.44	160.85	-17.18	-709.23	2,354.31	2,308.47	45.84	51.363		
6,500.00	6,002.10	6,086.32	6,024.17	40.68	18.77	160.64	-23.98	-730.22	2,393.98	2,347.30	46.68	51.284		
6,600.00	6,092.65	6,182.61	6,117.98	41.39	19.09	160.42	-30.92	-750.78	2,433.43	2,385.92	47.52	51.213		
6,700.00	6,183.19	6,273.25	6,206.36	42.10	19.40	160.24	-37.42	-769.83	2,472.85	2,424.54	48.31	51.185		
6,800.00	6,273.74	6,366.91	6,297.83	42.81	19.72	160.07	-43.97	-788.89	2,512.27	2,463.14	49.13	51.137		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 8H - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 280-MWD+HDGM, 3848-MWD+HDGM, 6022-Standard Keeper 104, 6899-MWD+HDGM, 7615-MWD+HDGM															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	8.78	151.78	23.43	153.59						
100.00	100.00	97.67	97.67	0.26	0.16	8.80	152.04	23.53	153.85	153.43	0.42	366.936	CC, ES		
200.00	200.00	196.81	196.81	0.62	0.32	8.86	152.81	23.82	154.67	153.73	0.94	164.694			
300.00	300.00	296.00	295.98	0.98	0.51	8.96	154.11	24.29	156.03	154.54	1.49	104.698			
400.00	400.00	396.69	396.66	1.34	0.87	8.91	155.68	24.39	157.59	155.39	2.21	71.388			
500.00	499.98	500.05	500.01	1.68	1.23	-173.44	156.16	23.17	159.61	156.70	2.91	54.837			
600.00	599.84	604.47	604.35	2.02	1.59	-174.78	154.19	19.63	162.49	158.89	3.60	45.081			
700.00	699.45	710.15	709.73	2.36	1.97	-176.92	149.09	13.61	165.80	161.49	4.31	38.447			
800.00	798.70	814.92	813.86	2.72	2.35	-179.50	140.68	5.90	169.50	164.47	5.03	33.700			
900.00	897.47	919.28	917.22	3.10	2.74	177.65	129.35	-3.05	174.16	168.41	5.76	30.240			
1,000.00	995.62	1,023.59	1,020.05	3.50	3.15	174.62	115.12	-13.21	179.93	173.42	6.51	27.659			
1,100.00	1,093.06	1,127.83	1,122.24	3.93	3.59	171.45	98.07	-24.65	186.98	179.70	7.27	25.707			
1,200.00	1,189.64	1,232.70	1,224.30	4.38	4.05	168.08	77.81	-37.72	195.19	187.12	8.07	24.181			
1,300.00	1,285.27	1,334.97	1,323.11	4.87	4.53	164.84	55.34	-51.55	204.90	195.99	8.90	23.009			
1,400.00	1,379.82	1,434.03	1,418.63	5.39	5.00	162.16	32.77	-64.96	217.67	207.90	9.77	22.281			
1,500.00	1,473.17	1,532.34	1,513.61	5.94	5.48	160.31	10.60	-77.26	234.01	223.37	10.64	21.986			
1,600.00	1,565.21	1,630.11	1,608.25	6.53	5.95	159.16	-11.15	-88.59	253.77	242.24	11.52	22.022			
1,655.87	1,616.03	1,684.19	1,660.65	6.88	6.22	158.74	-23.05	-94.65	266.28	254.26	12.02	22.158			
1,700.00	1,655.99	1,727.39	1,702.52	7.16	6.43	158.54	-32.54	-99.48	276.57	264.17	12.41	22.289			
1,800.00	1,746.53	1,826.90	1,798.79	7.80	6.92	158.02	-54.92	-111.03	299.55	286.24	13.31	22.503			
1,900.00	1,837.08	1,928.58	1,896.70	8.46	7.44	157.31	-79.23	-123.71	321.48	307.23	14.25	22.556			
2,000.00	1,927.62	2,029.86	1,993.69	9.12	7.97	156.47	-105.10	-137.17	342.18	326.95	15.22	22.479			
2,100.00	2,018.16	2,127.52	2,087.25	9.79	8.49	155.85	-130.33	-149.34	362.38	346.20	16.18	22.391			
2,200.00	2,108.71	2,224.85	2,180.64	10.47	9.00	155.37	-155.10	-161.10	382.85	365.71	17.15	22.330			
2,300.00	2,199.25	2,323.69	2,275.58	11.15	9.52	155.03	-180.10	-172.47	403.28	385.17	18.11	22.266			
2,400.00	2,289.80	2,420.71	2,368.82	11.83	10.03	154.75	-204.59	-183.47	423.72	404.65	19.07	22.216			
2,500.00	2,380.34	2,521.74	2,465.78	12.52	10.56	154.45	-230.53	-194.96	443.77	423.71	20.06	22.119			
2,600.00	2,470.88	2,616.68	2,556.66	13.21	11.07	154.05	-255.28	-206.86	463.89	442.85	21.04	22.043			
2,700.00	2,561.43	2,712.25	2,648.03	13.90	11.60	153.54	-279.97	-220.13	484.75	462.70	22.05	21.983			
2,800.00	2,651.97	2,808.33	2,739.83	14.59	12.12	153.04	-304.90	-233.66	505.63	482.56	23.07	21.918			
2,900.00	2,742.52	2,896.93	2,824.76	15.29	12.60	152.67	-326.74	-246.26	527.77	503.75	24.03	21.966			
3,000.00	2,833.06	2,984.53	2,909.41	15.98	13.05	152.53	-346.20	-257.60	551.65	526.72	24.93	22.124			
3,100.00	2,923.60	3,071.91	2,994.53	16.68	13.48	152.65	-363.36	-267.39	577.18	551.39	25.79	22.380			
3,200.00	3,014.15	3,157.78	3,078.57	17.38	13.88	152.89	-378.45	-276.43	604.28	577.69	26.60	22.721			
3,300.00	3,104.69	3,241.34	3,160.88	18.08	14.25	153.32	-390.75	-283.81	633.29	605.96	27.33	23.169			
3,400.00	3,195.24	3,326.88	3,245.60	18.78	14.59	153.95	-401.05	-289.62	663.96	635.93	28.04	23.683			
3,500.00	3,285.78	3,414.81	3,332.95	19.48	14.93	154.71	-409.97	-294.34	695.89	667.16	28.72	24.227			
3,600.00	3,376.32	3,504.30	3,421.96	20.18	15.26	155.48	-418.24	-298.56	728.51	699.10	29.41	24.770			
3,700.00	3,466.87	3,584.57	3,501.92	20.88	15.55	156.20	-424.34	-301.92	762.53	732.52	30.00	25.417			
3,800.00	3,557.41	3,666.00	3,583.16	21.59	15.83	156.93	-429.02	-304.98	798.17	767.59	30.58	26.098			
3,900.00	3,647.96	3,763.07	3,680.01	22.29	16.03	157.73	-434.15	-308.86	834.42	803.24	31.18	26.760			
4,000.00	3,738.50	3,866.27	3,782.87	23.00	16.22	158.40	-440.73	-314.08	870.17	838.36	31.81	27.357			
4,100.00	3,829.05	4,004.16	3,919.61	23.70	16.35	158.91	-455.19	-324.05	902.93	870.37	32.56	27.732			
4,200.00	3,919.59	4,137.46	4,050.60	24.41	16.55	159.04	-476.53	-336.37	931.18	897.86	33.32	27.950			
4,300.00	4,010.13	4,253.56	4,163.78	25.11	16.77	158.96	-499.19	-348.80	956.65	922.62	34.02	28.116			
4,400.00	4,100.68	4,362.68	4,269.64	25.82	17.00	158.82	-522.64	-361.15	980.44	945.71	34.73	28.230			
4,500.00	4,191.22	4,485.74	4,388.27	26.52	17.30	158.54	-551.57	-376.31	1,002.67	967.14	35.53	28.218			
4,600.00	4,281.77	4,594.82	4,492.71	27.23	17.61	158.23	-579.75	-390.29	1,022.82	986.51	36.31	28.166			
4,700.00	4,372.31	4,686.01	4,579.67	27.94	17.88	157.90	-604.00	-403.22	1,042.70	1,005.65	37.05	28.141			
4,800.00	4,462.85	4,772.95	4,662.74	28.64	18.15	157.59	-626.16	-416.10	1,063.82	1,026.04	37.78	28.156			
4,900.00	4,553.40	4,876.62	4,762.10	29.35	18.48	157.30	-652.17	-430.21	1,085.01	1,046.42	38.59	28.115			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 8H - OH - OH													Offset Well Error:	0.00 ft
Survey Program: 280-MWD+HDGM, 3848-MWD+HDGM, 6022-Standard Keeper 104, 6899-MWD+HDGM, 7615-MWD+HDGM														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,000.00	4,643.94	4,983.20	4,864.30	30.06	18.82	157.07	-679.29	-443.60	1,105.55	1,066.13	39.41	28.049		
5,100.00	4,734.49	5,081.75	4,958.42	30.76	19.16	156.79	-705.25	-456.90	1,125.55	1,085.32	40.23	27.978		
5,200.00	4,825.03	5,178.82	5,050.67	31.47	19.52	156.43	-731.39	-472.04	1,145.70	1,104.61	41.09	27.885		
5,300.00	4,915.57	5,293.45	5,158.66	32.18	19.98	155.85	-763.96	-492.48	1,165.24	1,123.12	42.12	27.666		
5,400.00	5,006.12	5,396.04	5,254.40	32.89	20.42	155.24	-794.84	-512.56	1,183.84	1,140.70	43.14	27.445		
5,500.00	5,096.66	5,490.03	5,342.18	33.59	20.84	154.70	-823.09	-530.77	1,202.53	1,158.43	44.11	27.264		
5,600.00	5,187.21	5,584.53	5,430.68	34.30	21.26	154.21	-850.96	-548.71	1,221.72	1,176.63	45.08	27.099		
5,700.00	5,277.75	5,687.77	5,527.38	35.01	21.73	153.69	-881.47	-568.10	1,240.87	1,194.74	46.13	26.897		
5,800.00	5,368.29	5,789.75	5,622.72	35.72	22.21	153.19	-912.17	-587.24	1,259.59	1,212.40	47.19	26.690		
5,900.00	5,458.84	5,895.09	5,721.09	36.43	22.72	152.67	-944.27	-607.03	1,278.07	1,229.78	48.29	26.464		
6,000.00	5,549.38	5,996.56	5,815.58	37.14	23.22	152.17	-975.84	-626.29	1,296.11	1,246.72	49.39	26.243		
6,100.00	5,639.93	6,079.31	5,892.67	37.84	23.36	151.78	-1,001.59	-641.85	1,314.24	1,264.14	50.10	26.233		
6,200.00	5,730.47	6,152.41	5,961.36	38.55	23.47	151.48	-1,022.58	-655.40	1,334.44	1,283.70	50.73	26.303		
6,300.00	5,821.02	6,229.97	6,034.81	39.26	23.59	151.23	-1,043.31	-669.19	1,356.22	1,304.86	51.36	26.406		
6,400.00	5,911.56	6,290.59	6,092.81	39.97	23.68	151.11	-1,058.13	-678.73	1,379.56	1,327.72	51.84	26.612		
6,500.00	6,002.10	6,379.96	6,179.29	40.68	23.79	151.07	-1,076.85	-691.22	1,405.00	1,352.56	52.44	26.795		
6,600.00	6,092.65	6,430.07	6,228.23	41.39	23.84	151.11	-1,085.56	-697.52	1,432.62	1,379.87	52.75	27.159		
6,700.00	6,183.19	6,499.64	6,296.62	42.10	23.91	151.23	-1,095.79	-705.10	1,462.28	1,409.15	53.13	27.522		
6,800.00	6,273.74	6,572.15	6,368.28	42.81	23.97	151.44	-1,104.62	-711.68	1,493.46	1,439.97	53.49	27.921		
6,900.00	6,364.28	6,648.51	6,444.08	43.52	24.02	151.74	-1,111.89	-717.38	1,526.24	1,472.40	53.83	28.352		
7,000.00	6,454.82	6,716.40	6,511.65	44.23	24.06	152.04	-1,116.92	-721.61	1,560.38	1,506.29	54.09	28.847		
7,078.44	6,525.85	6,774.03	6,569.10	44.78	24.09	152.32	-1,120.38	-724.68	1,587.96	1,533.66	54.31	29.240		
7,100.00	6,545.36	6,790.82	6,585.85	44.93	24.10	147.12	-1,121.23	-725.49	1,595.52	1,541.15	54.37	29.347		
7,150.00	6,590.41	6,829.45	6,624.34	45.28	24.12	135.70	-1,123.29	-727.94	1,611.91	1,557.43	54.48	29.587		
7,200.00	6,634.92	6,870.01	6,664.62	45.63	24.13	125.59	-1,125.89	-731.88	1,626.61	1,572.02	54.59	29.797		
7,250.00	6,678.53	6,918.33	6,712.32	45.95	24.14	117.15	-1,129.67	-738.57	1,639.52	1,584.78	54.75	29.946		
7,300.00	6,720.93	6,987.92	6,779.37	46.26	24.15	110.39	-1,138.45	-754.74	1,650.04	1,594.92	55.12	29.936		
7,350.00	6,761.78	7,081.63	6,864.36	46.56	24.18	105.00	-1,157.27	-789.06	1,657.53	1,601.70	55.83	29.690		
7,400.00	6,800.78	7,191.02	6,952.04	46.84	24.28	100.53	-1,189.36	-845.63	1,661.11	1,604.20	56.91	29.189		
7,450.00	6,837.62	7,262.66	7,000.54	47.10	24.39	96.86	-1,215.20	-891.48	1,661.45	1,603.79	57.67	28.811		
7,500.00	6,872.04	7,322.93	7,035.02	47.34	24.56	93.97	-1,239.03	-934.74	1,659.14	1,600.72	58.42	28.400		
7,550.00	6,903.76	7,368.38	7,056.91	47.57	24.71	91.84	-1,257.91	-969.79	1,654.45	1,595.46	58.99	28.046		
7,600.00	6,932.55	7,403.69	7,071.25	47.79	24.87	90.34	-1,272.70	-998.46	1,647.96	1,588.52	59.44	27.727		
7,650.00	6,958.18	7,436.00	7,082.23	47.99	25.01	89.37	-1,286.20	-1,025.68	1,639.76	1,579.92	59.84	27.404		
7,700.00	6,980.47	7,479.19	7,093.75	48.18	25.28	88.78	-1,304.19	-1,063.20	1,629.79	1,569.19	60.60	26.894		
7,750.00	6,999.24	7,526.00	7,102.19	48.35	25.58	88.59	-1,323.58	-1,104.94	1,618.07	1,556.59	61.48	26.319		
7,800.00	7,014.34	7,568.74	7,106.54	48.52	26.10	88.83	-1,341.22	-1,143.61	1,604.49	1,542.27	62.22	25.787		
7,850.00	7,025.67	7,615.00	7,108.00	48.68	26.74	89.45	-1,360.35	-1,185.70	1,588.93	1,525.83	63.10	25.182		
7,900.00	7,033.14	7,639.84	7,107.76	48.83	26.83	90.61	-1,370.42	-1,208.41	1,571.96	1,508.44	63.52	24.749		
7,950.00	7,036.69	7,662.59	7,107.33	48.97	26.91	92.15	-1,379.30	-1,229.35	1,554.00	1,490.06	63.95	24.301		
7,971.61	7,037.00	7,672.44	7,107.08	49.03	26.94	92.92	-1,383.03	-1,238.45	1,545.97	1,481.82	64.15	24.099		
8,000.00	7,036.93	7,704.00	7,106.01	49.11	27.05	92.91	-1,394.60	-1,267.80	1,535.65	1,470.86	64.79	23.700		
8,100.00	7,036.66	7,731.91	7,104.88	49.44	27.19	92.88	-1,404.30	-1,293.94	1,500.13	1,434.53	65.60	22.867		
8,200.00	7,036.40	7,794.00	7,102.21	49.87	27.51	92.82	-1,424.12	-1,352.72	1,467.93	1,400.61	67.31	21.807		
8,300.00	7,036.14	7,831.22	7,100.58	50.41	27.76	92.78	-1,434.90	-1,388.31	1,438.42	1,369.71	68.71	20.935		
8,400.00	7,035.88	7,883.00	7,098.38	51.10	28.12	92.72	-1,448.68	-1,438.17	1,411.90	1,341.31	70.59	20.001		
8,500.00	7,035.62	7,931.36	7,096.28	51.97	28.53	92.66	-1,459.99	-1,485.13	1,388.60	1,315.98	72.62	19.121		
8,600.00	7,035.36	7,973.00	7,094.36	53.05	28.91	92.60	-1,468.30	-1,525.89	1,368.90	1,294.33	74.57	18.357		
8,700.00	7,035.10	8,026.78	7,091.98	54.35	29.47	92.52	-1,477.08	-1,578.89	1,352.79	1,275.73	77.06	17.556		
8,800.00	7,034.83	8,087.52	7,089.66	55.87	30.19	92.44	-1,484.60	-1,639.12	1,340.28	1,260.40	79.87	16.780		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 8H - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 280-MWD+HDGM, 3848-MWD+HDGM, 6022-Standard Keeper 104, 6899-MWD+HDGM, 7615-MWD+HDGM															
Reference		Offset		Semi Major Axis			Distance					Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
8,900.00	7,034.57	8,152.00	7,087.25	57.61	31.05	92.36	-1,491.89	-1,703.14	1,329.44	1,246.49	82.94	16.028			
9,000.00	7,034.31	8,241.00	7,083.83	59.52	32.42	92.23	-1,499.61	-1,791.73	1,320.86	1,233.83	87.03	15.178			
9,100.00	7,034.05	8,314.48	7,080.86	61.59	33.70	92.12	-1,504.12	-1,865.01	1,314.54	1,223.82	90.72	14.490			
9,200.00	7,033.79	8,392.66	7,077.49	63.79	35.18	91.99	-1,508.35	-1,943.00	1,309.24	1,214.54	94.69	13.826			
9,300.00	7,033.53	8,480.10	7,073.36	66.09	36.98	91.82	-1,511.61	-2,030.28	1,305.55	1,206.42	99.14	13.169			
9,400.00	7,033.27	8,561.79	7,069.21	68.49	38.77	91.65	-1,514.02	-2,111.83	1,302.71	1,199.26	103.45	12.593			
9,500.00	7,033.00	8,647.47	7,065.38	70.95	40.73	91.49	-1,515.13	-2,197.42	1,301.48	1,193.46	108.01	12.049			
9,600.00	7,032.74	8,736.73	7,061.45	73.48	42.87	91.33	-1,515.76	-2,286.59	1,300.90	1,188.09	112.81	11.532			
9,604.45	7,032.73	8,740.47	7,061.27	73.59	42.96	91.32	-1,515.76	-2,290.33	1,300.90	1,187.89	113.02	11.511			
9,700.00	7,032.48	8,829.20	7,057.10	76.05	45.16	91.15	-1,515.48	-2,378.95	1,301.31	1,183.50	117.82	11.045			
9,800.00	7,032.22	8,921.36	7,052.73	78.67	47.50	90.97	-1,514.95	-2,471.01	1,302.03	1,179.16	122.87	10.597			
9,900.00	7,031.96	9,013.02	7,048.11	81.33	49.89	90.77	-1,513.65	-2,562.55	1,303.58	1,175.62	127.96	10.187			
10,000.00	7,031.70	9,095.51	7,043.80	84.02	52.07	90.59	-1,511.92	-2,644.90	1,305.88	1,173.22	132.66	9.844			
10,100.00	7,031.44	9,188.52	7,039.60	86.74	54.57	90.42	-1,508.55	-2,737.76	1,309.66	1,171.76	137.90	9.497			
10,200.00	7,031.17	9,297.36	7,036.26	89.49	57.54	90.28	-1,505.19	-2,846.49	1,312.94	1,169.00	143.94	9.121			
10,300.00	7,030.91	9,403.33	7,032.54	92.26	60.47	90.13	-1,502.47	-2,952.36	1,315.72	1,165.83	149.89	8.778			
10,400.00	7,030.65	9,518.03	7,028.23	95.04	63.69	89.96	-1,500.48	-3,066.96	1,317.65	1,161.39	156.27	8.432			
10,500.00	7,030.39	9,623.35	7,024.36	97.85	66.67	89.80	-1,499.45	-3,172.21	1,318.86	1,156.62	162.23	8.129			
10,600.00	7,030.13	9,735.09	7,020.58	100.67	69.85	89.65	-1,498.87	-3,283.88	1,319.63	1,151.11	168.52	7.831			
10,700.00	7,029.87	9,827.47	7,018.29	103.50	72.51	89.56	-1,498.92	-3,376.23	1,319.82	1,145.88	173.94	7.588			
10,800.00	7,029.60	9,935.87	7,015.58	106.35	75.63	89.46	-1,498.44	-3,484.60	1,320.53	1,140.40	180.12	7.331			
10,900.00	7,029.34	10,023.82	7,013.48	109.21	78.18	89.38	-1,498.22	-3,572.52	1,321.02	1,135.65	185.38	7.126			
11,000.00	7,029.08	10,131.86	7,010.79	112.08	81.32	89.27	-1,497.67	-3,680.53	1,321.78	1,130.20	191.58	6.899			
11,100.00	7,028.82	10,231.65	7,009.23	114.96	84.23	89.22	-1,497.53	-3,780.31	1,322.15	1,124.73	197.42	6.697			
11,200.00	7,028.56	10,326.84	7,007.41	117.85	87.02	89.15	-1,497.16	-3,875.47	1,322.77	1,119.72	203.05	6.514			
11,300.00	7,028.30	10,434.98	7,006.32	120.74	90.19	89.11	-1,496.61	-3,983.60	1,323.54	1,114.22	209.31	6.323			
11,371.00	7,028.11	10,508.29	7,005.50	122.81	92.35	89.09	-1,496.95	-4,056.91	1,323.36	1,109.76	213.60	6.195			
11,400.00	7,028.04	10,531.33	7,005.16	123.65	93.03	89.07	-1,496.95	-4,079.95	1,323.43	1,108.40	215.03	6.155			
11,500.00	7,027.77	10,640.81	7,003.67	126.56	96.26	89.02	-1,496.58	-4,189.42	1,324.04	1,102.68	221.37	5.981			
11,581.03	7,027.56	10,718.33	7,003.01	128.92	98.55	89.00	-1,497.01	-4,266.93	1,323.78	1,097.79	225.99	5.858			
11,600.00	7,027.51	10,735.08	7,002.70	129.48	99.04	88.99	-1,497.04	-4,283.68	1,323.80	1,096.79	227.01	5.831			
11,700.00	7,027.25	10,827.28	7,001.35	132.40	101.77	88.94	-1,496.81	-4,375.86	1,324.28	1,091.72	232.56	5.694			
11,800.00	7,026.99	10,941.19	7,000.22	135.33	105.15	88.91	-1,496.99	-4,489.77	1,324.34	1,085.20	239.13	5.538			
11,817.70	7,026.94	10,955.02	6,999.97	135.85	105.56	88.90	-1,497.04	-4,503.60	1,324.31	1,084.31	240.00	5.518			
11,900.00	7,026.73	11,020.79	6,998.58	138.26	107.51	88.85	-1,496.76	-4,569.35	1,324.87	1,080.77	244.10	5.428			
12,000.00	7,026.47	11,134.07	6,997.38	141.20	110.88	88.81	-1,496.14	-4,682.62	1,325.65	1,074.98	250.67	5.288			
12,100.00	7,026.21	11,237.54	6,995.44	144.15	113.96	88.73	-1,496.54	-4,786.07	1,325.50	1,068.74	256.77	5.162			
12,200.00	7,025.94	11,350.85	6,993.92	147.09	117.34	88.68	-1,496.91	-4,899.37	1,325.47	1,062.16	263.31	5.034			
12,300.00	7,025.68	11,441.13	6,992.09	150.05	120.03	88.61	-1,498.03	-4,989.62	1,324.52	1,055.70	268.82	4.927			
12,400.00	7,025.42	11,548.67	6,989.76	153.00	123.24	88.52	-1,498.65	-5,097.13	1,324.23	1,049.12	275.10	4.814			
12,479.68	7,025.21	11,617.10	6,988.70	155.36	125.29	88.48	-1,499.15	-5,165.55	1,323.86	1,044.51	279.34	4.739			
12,500.00	7,025.16	11,634.23	6,988.30	155.96	125.80	88.47	-1,499.18	-5,182.68	1,323.88	1,043.48	280.40	4.721			
12,600.00	7,024.90	11,747.52	6,985.78	158.92	129.19	88.37	-1,499.89	-5,295.94	1,323.50	1,036.54	286.96	4.612			
12,657.32	7,024.75	11,794.77	6,985.00	160.62	130.60	88.34	-1,500.20	-5,343.18	1,323.28	1,033.36	289.92	4.564			
12,700.00	7,024.64	11,836.23	6,984.42	161.89	131.84	88.32	-1,500.20	-5,384.63	1,323.38	1,030.97	292.41	4.526			
12,800.00	7,024.38	11,950.44	6,982.50	164.86	135.26	88.25	-1,501.52	-5,498.82	1,322.42	1,023.40	299.02	4.422			
12,900.00	7,024.11	12,043.21	6,979.96	167.83	138.04	88.15	-1,502.29	-5,591.55	1,321.88	1,017.22	304.65	4.339			
13,000.00	7,023.85	12,138.21	6,978.45	170.80	140.89	88.10	-1,502.90	-5,686.53	1,321.50	1,011.10	310.40	4.257			
13,006.08	7,023.84	12,143.59	6,978.37	170.98	141.05	88.09	-1,502.92	-5,691.92	1,321.50	1,010.77	310.73	4.253			
13,100.00	7,023.59	12,239.49	6,977.01	173.78	143.93	88.05	-1,503.04	-5,787.80	1,321.62	1,005.18	316.44	4.177			
13,200.00	7,023.33	12,354.22	6,976.29	176.75	147.38	88.03	-1,504.09	-5,902.53	1,320.94	997.85	323.09	4.088			

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 8H - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 280-MWD+HDGM, 3848-MWD+HDGM, 6022-Standard Keeper 104, 6899-MWD+HDGM, 7615-MWD+HDGM															
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
13,300.00	7,023.07	12,512.93	6,976.42	179.74	152.13	88.04	-1,510.10	-6,061.08	1,317.30	985.98	331.32	3.976			
13,400.00	7,022.81	12,812.80	6,977.17	182.72	160.87	88.04	-1,554.65	-6,357.26	1,299.89	959.97	339.92	3.824			
13,500.00	7,022.54	12,934.79	6,977.19	185.70	164.34	88.02	-1,580.84	-6,476.40	1,278.77	933.35	345.42	3.702			
13,600.00	7,022.28	13,058.29	6,977.45	188.69	167.82	87.99	-1,611.18	-6,596.12	1,254.25	903.56	350.69	3.577			
13,700.00	7,022.02	13,164.00	6,979.52	191.68	170.77	88.06	-1,638.48	-6,698.22	1,228.52	872.34	356.18	3.449			
13,800.00	7,021.76	13,227.69	6,980.50	194.67	172.57	88.09	-1,654.41	-6,759.87	1,203.91	841.38	362.53	3.321			
13,900.00	7,021.50	13,294.87	6,980.19	197.66	174.48	88.06	-1,668.80	-6,825.48	1,182.61	813.94	368.68	3.208			
14,000.00	7,021.24	13,369.96	6,979.72	200.65	176.65	88.02	-1,683.59	-6,899.10	1,163.18	788.54	374.64	3.105			
14,100.00	7,020.98	13,432.00	6,979.46	203.64	178.45	88.00	-1,694.44	-6,960.18	1,146.08	765.59	380.49	3.012			
14,200.00	7,020.71	13,505.86	6,979.14	206.64	180.62	87.97	-1,705.40	-7,033.22	1,131.58	745.39	386.19	2.930			
14,300.00	7,020.45	13,561.26	6,978.79	209.64	182.26	87.95	-1,711.82	-7,088.24	1,120.33	728.96	391.37	2.863			
14,400.00	7,020.19	13,611.00	6,978.49	212.64	183.74	87.94	-1,715.49	-7,137.84	1,113.28	717.50	395.79	2.813			
14,500.00	7,019.93	13,683.95	6,978.09	215.64	185.94	87.92	-1,718.35	-7,210.73	1,109.64	709.01	400.63	2.770			
14,572.71	7,019.74	13,731.31	6,977.88	217.82	187.36	87.91	-1,719.04	-7,258.09	1,108.77	705.05	403.72	2.746			
14,600.00	7,019.67	13,748.43	6,977.81	218.64	187.88	87.91	-1,719.00	-7,275.21	1,108.90	704.11	404.78	2.739			
14,700.00	7,019.41	13,810.82	6,977.65	221.64	189.76	87.92	-1,717.51	-7,337.57	1,111.50	703.10	408.40	2.722			
14,800.00	7,019.15	13,880.00	6,977.51	224.64	191.84	87.93	-1,713.35	-7,406.63	1,117.55	705.43	412.13	2.712			
14,900.00	7,018.88	13,922.97	6,977.30	227.65	193.12	87.93	-1,709.10	-7,449.38	1,127.35	714.24	413.11	2.729			
15,000.00	7,018.62	13,970.00	6,976.75	230.65	194.52	87.92	-1,702.54	-7,495.94	1,141.63	728.02	413.61	2.760			
15,100.00	7,018.36	14,031.57	6,975.88	233.66	196.33	87.90	-1,691.58	-7,556.53	1,159.72	744.52	415.20	2.793			
15,200.00	7,018.10	14,093.83	6,975.07	236.66	198.15	87.90	-1,678.45	-7,617.37	1,181.00	764.45	416.56	2.835			
15,300.00	7,017.84	14,162.33	6,974.09	239.67	200.14	87.89	-1,662.12	-7,683.89	1,205.02	786.49	418.53	2.879			
15,400.00	7,017.58	14,255.94	6,972.99	242.68	202.84	87.89	-1,638.70	-7,774.52	1,230.27	806.34	423.93	2.902			
15,500.00	7,017.32	14,356.59	6,972.13	245.69	205.75	87.90	-1,613.80	-7,872.03	1,255.21	824.91	430.30	2.917			
15,600.00	7,017.05	14,446.40	6,971.09	248.70	208.34	87.90	-1,591.24	-7,958.95	1,280.55	845.35	435.20	2.942			
15,700.00	7,016.79	14,588.42	6,969.57	251.71	212.47	87.91	-1,556.75	-8,096.71	1,305.38	858.49	446.89	2.921			
15,800.00	7,016.53	14,907.12	6,968.13	254.72	222.02	87.95	-1,515.06	-8,412.30	1,317.41	843.64	473.77	2.781			
15,900.00	7,016.27	15,061.01	6,967.48	257.74	226.68	87.94	-1,511.11	-8,566.12	1,319.79	836.80	482.99	2.733			
16,000.00	7,016.01	15,160.40	6,966.87	260.75	229.69	87.93	-1,509.76	-8,665.50	1,321.37	832.37	489.00	2.702			
16,100.00	7,015.75	15,265.35	6,965.93	263.76	232.87	87.90	-1,508.62	-8,770.44	1,322.70	827.41	495.29	2.671			
16,200.00	7,015.49	15,370.54	6,965.30	266.78	236.06	87.89	-1,507.81	-8,875.63	1,323.70	822.10	501.59	2.639			
16,300.00	7,015.22	15,468.23	6,964.33	269.79	239.02	87.86	-1,507.31	-8,973.31	1,324.46	816.94	507.52	2.610			
16,400.00	7,014.96	15,560.76	6,963.25	272.81	241.82	87.83	-1,506.42	-9,065.83	1,325.67	812.49	513.17	2.583			
16,500.00	7,014.70	15,646.31	6,962.15	275.82	244.42	87.79	-1,504.94	-9,151.36	1,327.67	809.24	518.43	2.561			
16,600.00	7,014.44	15,730.81	6,961.19	278.84	246.98	87.76	-1,502.46	-9,235.81	1,330.85	807.28	523.57	2.542			
16,700.00	7,014.18	15,844.47	6,960.45	281.86	250.43	87.75	-1,498.67	-9,349.41	1,334.45	804.03	530.42	2.516			
16,800.00	7,013.92	15,939.65	6,959.73	284.88	253.31	87.74	-1,496.16	-9,444.55	1,337.33	801.13	536.20	2.494			
16,900.00	7,013.65	16,038.29	6,958.70	287.89	256.31	87.71	-1,493.33	-9,543.15	1,340.44	798.28	542.17	2.472			
17,000.00	7,013.39	16,138.99	6,957.67	290.91	259.36	87.68	-1,490.17	-9,643.79	1,343.82	795.57	548.25	2.451			
17,100.00	7,013.13	16,259.34	6,958.16	293.93	263.02	87.72	-1,487.87	-9,764.12	1,345.87	790.43	555.45	2.423			
17,200.00	7,012.87	16,357.23	6,958.45	296.95	265.99	87.75	-1,486.47	-9,862.00	1,347.49	786.08	561.41	2.400			
17,300.00	7,012.61	16,461.87	6,958.47	299.97	269.16	87.76	-1,484.91	-9,966.63	1,349.19	781.48	567.71	2.377			
17,400.00	7,012.35	16,564.72	6,958.99	302.99	272.28	87.80	-1,483.77	-10,069.47	1,350.49	776.56	573.93	2.353			
17,500.00	7,012.09	16,666.44	6,959.86	306.01	275.37	87.85	-1,482.80	-10,171.17	1,351.61	771.52	580.09	2.330			
17,600.00	7,011.82	16,761.85	6,960.03	309.04	278.26	87.87	-1,481.82	-10,266.58	1,352.84	766.91	585.93	2.309			
17,700.00	7,011.56	16,855.75	6,959.78	312.06	281.11	87.87	-1,480.41	-10,360.47	1,354.55	762.88	591.67	2.289			
17,800.00	7,011.30	16,958.32	6,959.84	315.08	284.22	87.89	-1,478.76	-10,463.03	1,356.36	758.49	597.87	2.269			
17,900.00	7,011.04	17,058.44	6,959.99	318.10	287.26	87.91	-1,477.38	-10,563.14	1,357.95	754.00	603.95	2.248			
18,000.00	7,010.78	17,153.95	6,959.78	321.12	290.16	87.91	-1,475.82	-10,658.64	1,359.80	750.02	609.77	2.230			
18,100.00	7,010.52	17,257.88	6,959.65	324.15	293.32	87.92	-1,473.99	-10,762.55	1,361.76	745.71	616.05	2.210			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 8H - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 280-MWD+HDGM, 3848-MWD+HDGM, 6022-Standard Keeper 104, 6899-MWD+HDGM, 7615-MWD+HDGM															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
18,200.00	7,010.26	17,357.86	6,959.60	327.17	296.35	87.93	-1,472.55	-10,862.52	1,363.41	741.30	622.12	2.192			
18,300.00	7,009.99	17,452.03	6,959.39	330.20	299.21	87.94	-1,470.95	-10,956.68	1,365.32	737.45	627.87	2.175			
18,400.00	7,009.73	17,554.86	6,959.24	333.22	302.34	87.94	-1,469.08	-11,059.49	1,367.36	733.27	634.09	2.156			
18,500.00	7,009.47	17,650.33	6,959.12	336.24	305.24	87.95	-1,467.24	-11,154.95	1,369.49	729.58	639.91	2.140			
18,600.00	7,009.21	17,751.35	6,958.95	339.27	308.31	87.96	-1,465.27	-11,255.94	1,371.66	725.62	646.04	2.123			
18,700.00	7,008.95	17,849.56	6,958.93	342.29	311.29	87.97	-1,463.20	-11,354.13	1,373.97	721.96	652.01	2.107			
18,800.00	7,008.69	17,947.10	6,958.71	345.32	314.25	87.98	-1,461.18	-11,451.64	1,376.25	718.31	657.94	2.092			
18,900.00	7,008.43	18,044.66	6,958.14	348.35	317.22	87.97	-1,458.75	-11,549.18	1,378.96	715.10	663.87	2.077			
19,000.00	7,008.16	18,152.11	6,957.60	351.37	320.48	87.96	-1,456.39	-11,656.60	1,381.39	711.04	670.35	2.061			
19,100.00	7,007.90	18,248.04	6,956.85	354.40	323.40	87.94	-1,454.53	-11,752.51	1,383.57	707.39	676.18	2.046			
19,200.00	7,007.64	18,353.65	6,956.06	357.42	326.61	87.93	-1,452.37	-11,858.09	1,385.85	703.31	682.55	2.030			
19,300.00	7,007.38	18,453.01	6,955.09	360.45	329.63	87.90	-1,450.59	-11,957.43	1,387.88	699.32	688.56	2.016			
19,400.00	7,007.12	18,549.82	6,954.22	363.48	332.57	87.88	-1,448.77	-12,054.22	1,390.00	695.56	694.45	2.002			
19,500.00	7,006.86	18,642.33	6,953.41	366.50	335.38	87.86	-1,446.57	-12,146.70	1,392.61	692.53	700.08	1.989	Collision Risk Procedures Req.		
19,600.00	7,006.60	18,738.11	6,953.30	369.53	338.29	87.87	-1,444.04	-12,242.45	1,395.47	689.56	705.91	1.977	Collision Risk Procedures Req.		
19,700.00	7,006.33	18,829.22	6,953.51	372.56	341.07	87.89	-1,440.97	-12,333.51	1,399.02	687.57	711.45	1.966	Collision Risk Procedures Req.		
19,800.00	7,006.07	18,930.35	6,953.36	375.59	344.14	87.90	-1,437.47	-12,434.58	1,402.70	685.09	717.60	1.955	Collision Risk Procedures Req.		
19,900.00	7,005.81	19,027.69	6,953.33	378.62	347.10	87.92	-1,434.04	-12,531.85	1,406.42	682.91	723.52	1.944	Collision Risk Procedures Req.		
20,000.00	7,005.55	19,144.15	6,953.37	381.64	350.65	87.94	-1,430.17	-12,648.25	1,409.99	679.41	730.59	1.930	Collision Risk Procedures Req.		
20,100.00	7,005.29	19,255.39	6,953.43	384.67	354.03	87.95	-1,427.99	-12,759.47	1,412.14	674.86	737.28	1.915	Collision Risk Procedures Req.		
20,200.00	7,005.03	19,348.84	6,953.54	387.70	356.87	87.97	-1,426.16	-12,852.90	1,414.30	671.29	743.01	1.903	Collision Risk Procedures Req.		
20,300.00	7,004.76	19,452.93	6,953.55	390.73	360.03	87.99	-1,424.11	-12,956.97	1,416.47	667.16	749.31	1.890	Collision Risk Procedures Req.		
20,400.00	7,004.50	19,554.12	6,953.54	393.76	363.11	88.00	-1,422.30	-13,058.14	1,418.47	663.02	755.45	1.878	Collision Risk Procedures Req.		
20,500.00	7,004.24	19,653.58	6,953.54	396.79	366.14	88.01	-1,420.55	-13,157.59	1,420.43	658.93	761.50	1.865	Collision Risk Procedures Req.		
20,600.00	7,003.98	19,750.11	6,953.58	399.82	369.07	88.03	-1,418.73	-13,254.10	1,422.53	655.14	767.39	1.854	Collision Risk Procedures Req.		
20,700.00	7,003.72	19,855.72	6,953.57	402.85	372.28	88.04	-1,416.66	-13,359.69	1,424.69	650.93	773.77	1.841	Collision Risk Procedures Req.		
20,800.00	7,003.46	19,960.38	6,953.54	405.88	375.46	88.05	-1,415.15	-13,464.33	1,426.34	646.26	780.09	1.828	Collision Risk Procedures Req.		
20,900.00	7,003.20	20,059.59	6,953.51	408.91	378.48	88.06	-1,413.82	-13,563.54	1,427.90	641.77	786.12	1.816	Collision Risk Procedures Req.		
21,000.00	7,002.93	20,163.72	6,953.49	411.94	381.64	88.08	-1,412.50	-13,667.66	1,429.37	636.96	792.41	1.804	Collision Risk Procedures Req.		
21,100.00	7,002.67	20,268.54	6,953.48	414.97	384.83	88.09	-1,411.67	-13,772.48	1,430.36	631.65	798.72	1.791	Collision Risk Procedures Req.		
21,200.00	7,002.41	20,360.38	6,953.40	418.00	387.62	88.10	-1,410.81	-13,864.31	1,431.52	627.13	804.39	1.780	Collision Risk Procedures Req.		
21,300.00	7,002.15	20,454.84	6,953.37	421.03	390.49	88.11	-1,409.24	-13,958.76	1,433.38	623.20	810.18	1.769	Collision Risk Procedures Req.		
21,400.00	7,001.89	20,555.43	6,953.28	424.06	393.55	88.12	-1,407.62	-14,059.34	1,435.20	618.91	816.28	1.758	Collision Risk Procedures Req.		
21,500.00	7,001.63	20,658.27	6,953.29	427.09	396.68	88.13	-1,405.96	-14,162.16	1,437.02	614.51	822.51	1.747	Collision Risk Procedures Req.		
21,600.00	7,001.37	20,760.90	6,953.27	430.12	399.80	88.14	-1,404.59	-14,264.79	1,438.57	609.84	828.73	1.736	Collision Risk Procedures Req.		
21,700.00	7,001.10	20,858.00	6,953.21	433.15	402.75	88.15	-1,403.24	-14,361.88	1,440.16	605.51	834.65	1.725	Collision Risk Procedures Req.		
21,800.00	7,000.84	20,959.03	6,953.24	436.18	405.83	88.16	-1,401.79	-14,462.89	1,441.80	601.02	840.79	1.715	Collision Risk Procedures Req.		
21,900.00	7,000.58	21,055.28	6,953.29	439.22	408.75	88.18	-1,400.25	-14,559.13	1,443.61	596.94	846.67	1.705	Collision Risk Procedures Req.		
22,000.00	7,000.32	21,160.59	6,953.34	442.25	411.96	88.19	-1,398.78	-14,664.43	1,445.21	592.18	853.03	1.694	Collision Risk Procedures Req.		
22,100.00	7,000.06	21,257.66	6,953.39	445.28	414.91	88.21	-1,397.46	-14,761.49	1,446.78	587.82	858.96	1.684	Collision Risk Procedures Req.		
22,200.00	6,999.80	21,354.39	6,953.40	448.31	417.85	88.22	-1,395.88	-14,858.21	1,448.61	583.75	864.87	1.675	Collision Risk Procedures Req.		
22,300.00	6,999.54	21,457.22	6,953.44	451.34	420.98	88.24	-1,394.15	-14,961.03	1,450.50	579.41	871.10	1.665	Collision Risk Procedures Req.		
22,400.00	6,999.27	21,556.27	6,953.43	454.38	423.99	88.25	-1,392.67	-15,060.06	1,452.20	575.07	877.13	1.656	Collision Risk Procedures Req.		
22,500.00	6,999.01	21,659.85	6,953.42	457.41	427.14	88.26	-1,391.12	-15,163.63	1,453.91	570.52	883.39	1.646	Collision Risk Procedures Req.		
22,600.00	6,998.75	21,758.89	6,953.47	460.44	430.15	88.27	-1,389.76	-15,262.66	1,455.49	566.06	889.42	1.636	Collision Risk Procedures Req.		
22,700.00	6,998.49	21,862.04	6,953.52	463.47	433.29	88.29	-1,388.42	-15,365.81	1,456.99	561.33	895.67	1.627	Collision Risk Procedures Req.		
22,800.00	6,998.23	21,961.93	6,953.53	466.50	436.33	88.30	-1,387.33	-15,465.69	1,458.29	556.55	901.74	1.617	Collision Risk Procedures Req.		
22,900.00	6,997.97	22,054.62	6,953.44	469.54	439.15	88.31	-1,385.98	-15,558.37	1,459.97	552.53	907.44	1.609	Collision Risk Procedures Req.		
23,000.00	6,997.71	22,152.82	6,953.37	472.57	442.13	88.32	-1,384.19	-15,656.55	1,462.00	548.57	913.42	1.601	Collision Risk Procedures Req.		
23,100.00	6,997.44	22,260.27	6,953.29	475.60	445.40	88.33	-1,382.45	-15,763.98	1,463.83	543.93	919.90	1.591	Collision Risk Procedures Req.		
23,200.00	6,997.18	22,359.94	6,953.35	478.64	448.44	88.34	-1,381.24	-15,863.66	1,465.25	539.29	925.96	1.582	Collision Risk Procedures Req.		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design NEBU 604 Pad - NEBU 604 8H - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 280-MWD+HDGM, 3848-MWD+HDGM, 6022-Standard Keeper 104, 6899-MWD+HDGM, 7615-MWD+HDGM													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
23,269.63	6,997.00	22,430.77	6,953.44	480.75	450.59	88.35	-1,380.30	-15,934.48	1,466.29	536.03	930.26	1.576	Collision Risk Procedures Req., SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 9H - OH - Plan #4														Offset Well Error:	0.00 ft
Survey Program: 0-MWD+HDGM															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	-69.90	6.86	-18.73	19.95						
100.00	100.00	100.00	100.00	0.26	0.26	-69.90	6.86	-18.73	19.95	19.43	0.52	38.382			
200.00	200.00	200.00	200.00	0.62	0.62	-69.90	6.86	-18.73	19.95	18.71	1.24	16.132			
300.00	300.00	300.00	300.00	0.98	0.98	-69.90	6.86	-18.73	19.95	18.00	1.95	10.212			
400.00	400.00	400.00	400.00	1.34	1.34	-69.90	6.86	-18.73	19.95	17.28	2.67	7.470	CC		
500.00	499.98	500.01	499.99	1.68	1.68	108.04	5.21	-19.31	20.48	17.12	3.35	6.105	ES		
600.00	599.84	600.00	599.83	2.02	2.02	107.35	0.27	-21.05	22.05	18.03	4.02	5.479			
700.00	699.45	699.95	699.40	2.36	2.36	106.38	-7.94	-23.93	24.68	19.96	4.72	5.229			
800.00	798.70	799.86	798.56	2.72	2.72	105.31	-19.43	-27.97	28.37	22.93	5.45	5.210			
900.00	897.47	899.69	897.16	3.10	3.10	104.29	-34.16	-33.14	33.11	26.91	6.20	5.337			
1,000.00	995.62	999.45	995.08	3.50	3.51	103.36	-52.10	-39.44	38.91	31.90	7.00	5.554			
1,100.00	1,093.06	1,099.11	1,092.19	3.93	3.93	102.55	-73.23	-46.86	45.74	37.89	7.85	5.825			
1,200.00	1,189.64	1,198.65	1,188.35	4.38	4.38	101.85	-97.50	-55.38	53.61	44.86	8.75	6.124			
1,300.00	1,285.27	1,298.07	1,283.43	4.87	4.87	101.25	-124.87	-65.00	62.50	52.79	9.72	6.433			
1,400.00	1,379.82	1,397.35	1,377.32	5.39	5.38	100.72	-155.30	-75.68	72.40	61.66	10.74	6.741			
1,500.00	1,473.17	1,496.47	1,469.90	5.94	5.93	100.27	-188.72	-87.42	83.30	71.46	11.83	7.040			
1,600.00	1,565.21	1,595.44	1,561.04	6.53	6.52	99.86	-225.08	-100.18	95.17	82.18	13.00	7.323			
1,655.87	1,616.03	1,650.77	1,611.49	6.88	6.86	99.75	-246.54	-107.72	102.21	88.53	13.68	7.472			
1,700.00	1,655.99	1,694.54	1,651.36	7.16	7.13	99.96	-263.57	-113.70	107.85	93.62	14.23	7.581			
1,800.00	1,746.53	1,793.72	1,741.71	7.80	7.76	100.37	-302.18	-127.26	120.63	105.14	15.49	7.788			
1,900.00	1,837.08	1,892.90	1,832.05	8.46	8.41	100.70	-340.78	-140.82	133.41	116.64	16.77	7.956			
2,000.00	1,927.62	1,992.08	1,922.40	9.12	9.05	100.97	-379.38	-154.37	146.20	128.13	18.07	8.092			
2,100.00	2,018.16	2,091.25	2,012.74	9.79	9.71	101.20	-417.98	-167.93	158.99	139.62	19.38	8.205			
2,200.00	2,108.71	2,190.43	2,103.09	10.47	10.37	101.39	-456.58	-181.48	171.79	151.09	20.70	8.300			
2,300.00	2,199.25	2,289.61	2,193.43	11.15	11.03	101.56	-495.18	-195.04	184.58	162.56	22.03	8.380			
2,400.00	2,289.80	2,388.78	2,283.78	11.83	11.70	101.70	-533.79	-208.60	197.38	174.02	23.36	8.449			
2,500.00	2,380.34	2,487.96	2,374.12	12.52	12.37	101.83	-572.39	-222.15	210.17	185.47	24.70	8.508			
2,600.00	2,470.88	2,587.14	2,464.47	13.21	13.05	101.94	-610.99	-235.71	222.97	196.93	26.05	8.560			
2,700.00	2,561.43	2,686.31	2,554.81	13.90	13.72	102.04	-649.59	-249.26	235.77	208.37	27.40	8.605			
2,800.00	2,651.97	2,785.49	2,645.16	14.59	14.40	102.13	-688.19	-262.82	248.57	219.82	28.75	8.645			
2,900.00	2,742.52	2,884.67	2,735.50	15.29	15.08	102.21	-726.79	-276.38	261.37	231.26	30.11	8.681			
3,000.00	2,833.06	2,983.84	2,825.85	15.98	15.76	102.29	-765.40	-289.93	274.17	242.70	31.47	8.712			
3,100.00	2,923.60	3,083.02	2,916.19	16.68	16.44	102.35	-804.00	-303.49	286.98	254.14	32.83	8.741			
3,200.00	3,014.15	3,182.20	3,006.53	17.38	17.12	102.42	-842.60	-317.04	299.78	265.58	34.20	8.766			
3,300.00	3,104.69	3,281.37	3,096.88	18.08	17.80	102.47	-881.20	-330.60	312.58	277.02	35.56	8.789			
3,400.00	3,195.24	3,380.55	3,187.22	18.78	18.49	102.52	-919.80	-344.16	325.38	288.45	36.93	8.811			
3,500.00	3,285.78	3,479.73	3,277.57	19.48	19.17	102.57	-958.40	-357.71	338.19	299.88	38.30	8.830			
3,600.00	3,376.32	3,578.90	3,367.91	20.18	19.86	102.62	-997.01	-371.27	350.99	311.32	39.67	8.847			
3,700.00	3,466.87	3,678.08	3,458.26	20.88	20.54	102.66	-1,035.61	-384.82	363.79	322.75	41.04	8.864			
3,800.00	3,557.41	3,777.26	3,548.60	21.59	21.23	102.70	-1,074.21	-398.38	376.59	334.18	42.42	8.879			
3,900.00	3,647.96	3,876.43	3,638.95	22.29	21.92	102.73	-1,112.81	-411.94	389.40	345.61	43.79	8.892			
4,000.00	3,738.50	3,975.61	3,729.29	23.00	22.61	102.77	-1,151.41	-425.49	402.20	357.04	45.17	8.905			
4,100.00	3,829.05	4,074.79	3,819.64	23.70	23.29	102.80	-1,190.01	-439.05	415.00	368.46	46.54	8.917			
4,200.00	3,919.59	4,173.96	3,909.98	24.41	23.98	102.83	-1,228.61	-452.60	427.81	379.89	47.92	8.928			
4,300.00	4,010.13	4,273.14	4,000.33	25.11	24.67	102.86	-1,267.22	-466.16	440.61	391.32	49.29	8.938			
4,400.00	4,100.68	4,372.32	4,090.67	25.82	25.36	102.88	-1,305.82	-479.72	453.42	402.74	50.67	8.948			
4,500.00	4,191.22	4,471.49	4,181.02	26.52	26.05	102.91	-1,344.42	-493.27	466.22	414.17	52.05	8.957			
4,600.00	4,281.77	4,570.67	4,271.36	27.23	26.74	102.93	-1,383.02	-506.83	479.02	425.60	53.43	8.966			
4,700.00	4,372.31	4,669.85	4,361.71	27.94	27.43	102.95	-1,421.62	-520.38	491.83	437.02	54.81	8.974			
4,800.00	4,462.85	4,769.02	4,452.05	28.64	28.12	102.98	-1,460.22	-533.94	504.63	448.44	56.19	8.981			
4,900.00	4,553.40	4,868.20	4,542.39	29.35	28.81	103.00	-1,498.83	-547.50	517.44	459.87	57.57	8.988			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 9H - OH - Plan #4														Offset Well Error:	0.00 ft
Survey Program: 0-MWD+HDGM															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
5,000.00	4,643.94	4,967.38	4,632.74	30.06	29.50	103.02	-1,537.43	-561.05	530.24	471.29	58.95	8.995			
5,100.00	4,734.49	5,066.55	4,723.08	30.76	30.19	103.03	-1,576.03	-574.61	543.05	482.72	60.33	9.007			
5,200.00	4,825.03	5,165.73	4,813.43	31.47	30.88	103.05	-1,614.63	-588.16	555.85	494.14	61.71	9.001			
5,300.00	4,915.57	5,264.91	4,903.77	32.18	31.57	103.07	-1,653.23	-601.72	568.66	505.56	63.09	9.013			
5,400.00	5,006.12	5,364.08	4,994.12	32.89	32.26	103.08	-1,691.83	-615.28	581.46	516.98	64.48	9.018			
5,500.00	5,096.66	5,463.26	5,084.46	33.59	32.95	103.10	-1,730.44	-628.83	594.26	528.41	65.86	9.023			
5,600.00	5,187.21	5,562.44	5,174.81	34.30	33.64	103.11	-1,769.04	-642.39	607.07	539.83	67.24	9.028			
5,700.00	5,277.75	5,661.61	5,265.15	35.01	34.34	103.13	-1,807.64	-655.94	619.87	551.25	68.62	9.033			
5,800.00	5,368.29	5,760.79	5,355.50	35.72	35.03	103.14	-1,846.24	-669.50	632.68	562.67	70.01	9.037			
5,900.00	5,458.84	5,859.97	5,445.84	36.43	35.72	103.15	-1,884.84	-683.06	645.48	574.09	71.39	9.042			
6,000.00	5,549.38	5,959.14	5,536.19	37.14	36.41	103.17	-1,923.44	-696.61	658.29	585.52	72.77	9.046			
6,100.00	5,639.93	6,058.32	5,626.53	37.84	37.10	103.18	-1,962.05	-710.17	671.09	596.94	74.16	9.050			
6,200.00	5,730.47	6,157.50	5,716.88	38.55	37.79	103.19	-2,000.65	-723.72	683.90	608.36	75.54	9.053			
6,300.00	5,821.02	6,256.67	5,807.22	39.26	38.49	103.20	-2,039.25	-737.28	696.70	619.78	76.92	9.057			
6,400.00	5,911.56	6,355.85	5,897.57	39.97	39.18	103.21	-2,077.85	-750.84	709.51	631.20	78.31	9.060			
6,500.00	6,002.10	6,455.03	5,987.91	40.68	39.87	103.22	-2,116.45	-764.39	722.31	642.62	79.69	9.064			
6,600.00	6,092.65	6,554.20	6,078.26	41.39	40.56	103.23	-2,155.05	-777.95	735.12	654.04	81.08	9.067			
6,700.00	6,183.19	6,653.38	6,168.60	42.10	41.25	103.24	-2,193.65	-791.50	747.92	665.46	82.46	9.070			
6,800.00	6,273.74	6,752.56	6,258.94	42.81	41.95	103.25	-2,232.26	-805.06	760.73	676.88	83.85	9.073			
6,900.00	6,364.28	6,851.74	6,349.28	43.52	42.65	103.26	-2,270.87	-818.61	773.54	688.29	85.24	9.076			
7,000.00	6,454.82	6,950.92	6,439.62	44.23	43.39	103.27	-2,309.48	-832.16	786.35	700.00	86.63	9.079			
7,078.44	6,525.85	7,041.58	6,510.65	44.78	43.94	103.28	-2,348.09	-845.71	799.16	711.71	88.02	9.082			
7,100.00	6,545.36	7,061.09	6,530.16	44.93	45.28	179.04	-2,562.34	-83.35	496.56	460.42	36.14	13.739			
7,150.00	6,590.41	7,107.63	6,575.21	45.28	45.28	176.62	-2,562.36	-88.01	452.86	414.52	38.34	11.812			
7,200.00	6,634.92	7,153.17	6,619.76	45.63	45.29	172.82	-2,562.39	-96.98	411.04	370.05	40.99	10.027			
7,250.00	6,678.53	7,198.71	6,663.91	45.95	45.30	168.20	-2,562.44	-110.21	371.80	327.64	44.16	8.419			
7,300.00	6,720.93	7,244.25	6,708.16	46.26	45.32	163.06	-2,562.51	-127.59	335.87	288.02	47.85	7.019			
7,350.00	6,761.78	7,289.79	6,752.41	46.56	45.34	157.50	-2,562.59	-148.99	304.07	252.07	52.00	5.847			
7,400.00	6,800.78	7,335.33	6,796.66	46.84	45.36	151.49	-2,562.69	-174.25	277.19	220.80	56.39	4.915			
7,450.00	6,837.62	7,380.87	6,840.91	47.10	45.40	144.99	-2,562.80	-203.16	255.89	195.24	60.65	4.219			
7,500.00	6,872.04	7,426.41	6,885.16	47.34	45.43	137.99	-2,562.92	-235.52	240.57	176.25	64.32	3.740			
7,550.00	6,903.76	7,471.95	6,929.41	47.57	45.47	130.50	-2,563.04	-271.64	231.14	164.19	66.95	3.453			
7,600.00	6,932.55	7,517.49	6,973.66	47.79	45.52	122.45	-2,562.49	-311.12	226.83	158.41	68.42	3.315			
7,619.90	6,943.14	7,563.03	6,984.25	47.87	45.53	119.30	-2,562.00	-326.31	226.45	157.83	68.62	3.300 SF			
7,650.00	6,958.18	7,608.57	7,030.16	47.99	45.55	114.62	-2,560.97	-348.75	227.29	158.78	68.51	3.318			
7,700.00	6,980.47	7,654.11	7,074.71	48.18	45.58	107.13	-2,558.57	-384.70	232.14	164.81	67.34	3.447			
7,750.00	6,999.24	7,700.65	7,120.26	48.35	45.61	100.06	-2,555.39	-419.07	240.76	175.44	65.32	3.686			
7,800.00	7,014.34	7,746.19	7,165.81	48.52	45.62	93.54	-2,551.51	-451.98	252.35	189.39	62.97	4.008			
7,850.00	7,025.67	7,791.73	7,211.36	48.68	45.63	87.64	-2,546.96	-483.47	266.14	205.41	60.73	4.382			
7,900.00	7,033.14	7,837.27	7,256.91	48.83	45.64	82.40	-2,541.81	-513.61	281.41	222.46	58.95	4.774			
7,950.00	7,036.69	7,882.81	7,302.46	48.97	45.63	77.85	-2,536.08	-542.43	297.55	239.78	57.78	5.150			
7,971.61	7,037.00	7,928.35	7,347.01	49.03	45.63	76.09	-2,533.44	-554.48	304.67	247.19	57.48	5.300			
8,000.00	7,036.93	7,973.89	7,392.56	49.11	45.62	74.65	-2,529.88	-569.71	314.50	257.26	57.24	5.495			
8,100.00	7,036.66	8,019.43	7,437.07	49.44	45.59	69.79	-2,516.71	-618.20	356.09	298.77	57.32	6.213			
8,200.00	7,036.40	8,064.97	7,481.26	49.87	45.53	65.78	-2,504.12	-656.15	407.68	348.63	59.05	6.904			
8,300.00	7,036.14	8,110.51	7,525.45	50.41	45.46	61.98	-2,490.26	-691.14	467.90	407.00	60.90	7.683			
8,400.00	7,035.88	8,156.05	7,569.64	51.10	45.41	59.99	-2,482.03	-709.25	534.74	470.08	64.66	8.269			
8,500.00	7,035.62	8,201.59	7,613.83	51.97	45.36	58.47	-2,475.25	-722.87	607.40	539.26	68.14	8.914			
8,600.00	7,035.36	8,247.13	7,658.02	53.05	45.25	55.29	-2,459.20	-751.12	684.38	615.51	68.87	9.938			
8,700.00	7,035.10	8,292.67	7,702.21	54.35	45.25	55.29	-2,459.20	-751.12	764.72	692.14	72.59	10.535			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 9H - OH - Plan #4													Offset Well Error:	0.00 ft
Survey Program: 0-MWD+HDGM														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,800.00	7,034.83	7,317.25	6,765.65	55.87	45.15	53.39	-2,448.18	-767.63	847.72	774.03	73.69	11.504		
8,900.00	7,034.57	7,300.00	6,751.60	57.61	45.10	52.45	-2,442.22	-775.67	933.19	857.88	75.32	12.390		
9,000.00	7,034.31	7,282.09	6,736.78	59.52	45.04	51.51	-2,435.94	-783.53	1,020.52	943.94	76.59	13.325		
9,100.00	7,034.05	7,267.38	6,724.45	61.59	44.99	50.77	-2,430.71	-789.60	1,109.40	1,031.66	77.74	14.271		
9,200.00	7,033.79	7,250.00	6,709.70	63.79	44.94	49.93	-2,424.46	-796.33	1,199.58	1,121.00	78.58	15.265		
9,300.00	7,033.53	7,250.00	6,709.70	66.09	44.94	49.93	-2,424.46	-796.33	1,290.87	1,211.04	79.83	16.170		
9,400.00	7,033.27	7,231.63	6,693.91	68.49	44.87	49.08	-2,417.76	-802.91	1,382.96	1,302.61	80.34	17.213		
9,500.00	7,033.00	7,221.90	6,685.48	70.95	44.83	48.65	-2,414.18	-806.18	1,475.90	1,394.89	81.00	18.220		
9,600.00	7,032.74	7,200.00	6,666.30	73.48	44.74	47.71	-2,406.04	-812.95	1,569.71	1,488.44	81.27	19.316		
9,700.00	7,032.48	7,200.00	6,666.30	76.05	44.74	47.71	-2,406.04	-812.95	1,663.73	1,581.74	81.99	20.292		
9,800.00	7,032.22	7,200.00	6,666.30	78.67	44.74	47.71	-2,406.04	-812.95	1,758.41	1,675.79	82.62	21.283		
9,900.00	7,031.96	7,200.00	6,666.30	81.33	44.74	47.71	-2,406.04	-812.95	1,853.65	1,770.49	83.17	22.288		
10,000.00	7,031.70	7,200.00	6,666.30	84.02	44.74	47.71	-2,406.04	-812.95	1,949.37	1,865.73	83.65	23.305		
10,100.00	7,031.44	7,178.48	6,647.25	86.74	44.65	46.84	-2,397.94	-818.82	2,044.99	1,961.30	83.68	24.437		
10,200.00	7,031.17	7,173.05	6,642.41	89.49	44.62	46.63	-2,395.88	-820.18	2,141.18	2,057.19	83.99	25.494		
10,300.00	7,030.91	7,150.00	6,621.75	92.26	44.52	45.77	-2,387.10	-825.39	2,238.01	2,154.04	83.97	26.653		
10,400.00	7,030.65	7,150.00	6,621.75	95.04	44.52	45.77	-2,387.10	-825.39	2,334.56	2,250.25	84.31	27.690		
10,500.00	7,030.39	7,150.00	6,621.75	97.85	44.52	45.77	-2,387.10	-825.39	2,431.40	2,346.78	84.62	28.733		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 COM 1H - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 189-Gyro, 1172-SDI MWD, 6589-SDI MWD, 7662-SDI MWD															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	34.73	193.53	134.18	235.53						
100.00	100.00	97.15	97.15	0.26	0.00	34.61	193.71	133.69	235.37	235.11	0.26	905.025			
200.00	200.00	197.74	197.73	0.62	0.00	34.22	194.27	132.15	234.96	234.34	0.62	379.787			
300.00	300.00	297.79	297.75	0.98	0.00	33.74	194.94	130.22	234.44	233.46	0.98	239.935			
400.00	400.00	397.78	397.73	1.34	0.00	33.28	195.54	128.36	233.91	232.57	1.34	175.140			
416.32	416.32	414.03	413.97	1.39	0.00	-148.60	195.62	128.08	233.86	232.47	1.39	168.081	CC, ES		
500.00	499.98	497.31	497.24	1.68	0.00	-149.12	196.05	126.81	234.98	233.30	1.68	140.064			
600.00	599.84	596.65	596.58	2.02	0.00	-149.99	196.48	125.71	239.28	237.26	2.01	118.755			
700.00	699.45	695.42	695.34	2.36	0.00	-151.16	197.10	124.85	246.96	244.59	2.36	104.536			
800.00	798.70	794.03	793.94	2.72	0.00	-152.60	197.98	124.12	258.13	255.42	2.72	94.986			
900.00	897.47	892.93	892.83	3.10	0.00	-154.15	198.76	123.62	272.61	269.53	3.08	88.538			
1,000.00	995.62	991.62	991.53	3.50	0.00	-155.74	199.27	123.39	290.30	286.86	3.45	84.238			
1,100.00	1,093.06	1,086.56	1,086.47	3.93	0.08	-157.27	199.74	123.33	311.44	307.54	3.89	79.976			
1,200.00	1,189.64	1,178.43	1,178.32	4.38	0.19	-158.80	201.34	123.40	337.15	332.77	4.38	76.910			
1,300.00	1,285.27	1,266.00	1,265.83	4.87	0.39	-160.38	204.60	122.92	367.85	362.89	4.96	74.125			
1,400.00	1,379.82	1,350.28	1,349.92	5.39	0.60	-162.06	209.95	121.34	403.96	398.42	5.54	72.957			
1,500.00	1,473.17	1,432.53	1,431.79	5.94	0.82	-163.79	217.30	118.57	445.42	439.31	6.11	72.919	SF		
1,600.00	1,565.21	1,511.39	1,510.06	6.53	1.05	-165.48	226.12	114.64	491.96	485.29	6.67	73.711			
1,655.87	1,616.03	1,551.00	1,549.26	6.88	1.18	-166.31	231.20	112.25	520.15	513.17	6.98	74.562			
1,700.00	1,655.99	1,586.37	1,584.21	7.16	1.30	-167.18	236.11	109.88	543.21	535.98	7.23	75.124			
1,800.00	1,746.53	1,657.79	1,654.55	7.80	1.56	-168.85	247.17	104.39	596.95	589.19	7.76	76.900			
1,900.00	1,837.08	1,723.40	1,718.82	8.46	1.82	-170.28	258.99	98.56	653.03	644.76	8.27	78.957			
2,000.00	1,927.62	1,788.75	1,782.46	9.12	2.11	-171.61	272.37	92.19	711.38	702.60	8.78	81.057			
2,100.00	2,018.16	1,852.69	1,844.45	9.79	2.41	-172.78	286.72	85.83	771.63	762.35	9.28	83.183			
2,200.00	2,108.71	1,914.16	1,903.70	10.47	2.72	-173.82	301.73	79.33	833.68	823.91	9.76	85.396			
2,300.00	2,199.25	1,976.06	1,963.03	11.15	3.05	-174.79	317.98	72.38	897.36	887.10	10.26	87.496			
2,400.00	2,289.80	2,037.52	2,021.65	11.83	3.40	-175.68	335.01	65.30	962.38	951.63	10.75	89.534			
2,500.00	2,380.34	2,098.86	2,079.85	12.52	3.77	-176.52	352.82	57.65	1,028.57	1,017.33	11.25	91.447			
2,600.00	2,470.88	2,165.62	2,142.87	13.21	4.18	-177.39	372.89	48.59	1,095.69	1,083.90	11.79	92.900			
2,700.00	2,561.43	2,236.20	2,211.27	13.90	4.62	-178.27	394.90	38.35	1,163.17	1,150.79	12.39	93.915			
2,800.00	2,651.97	2,319.19	2,287.67	14.59	5.09	-179.15	419.17	26.76	1,230.52	1,217.49	13.03	94.437			
2,900.00	2,742.52	2,413.29	2,376.76	15.29	5.60	179.96	446.31	13.31	1,297.11	1,283.35	13.76	94.270			
3,000.00	2,833.06	2,475.39	2,435.65	15.98	5.95	179.45	464.10	4.81	1,363.64	1,349.38	14.26	95.641			
3,100.00	2,923.60	2,546.71	2,503.24	16.68	6.35	178.93	484.85	-4.49	1,430.59	1,415.76	14.83	96.449			
3,200.00	3,014.15	2,618.55	2,571.32	17.38	6.78	178.46	505.75	-13.94	1,497.60	1,482.18	15.42	97.123			
3,300.00	3,104.69	2,688.01	2,637.03	18.08	7.20	178.02	526.19	-23.34	1,564.93	1,548.93	16.00	97.830			
3,400.00	3,195.24	2,753.25	2,698.65	18.78	7.62	177.63	545.60	-32.42	1,632.58	1,616.03	16.55	98.639			
3,500.00	3,285.78	2,837.66	2,778.35	19.48	8.13	177.16	570.71	-44.38	1,700.30	1,683.05	17.25	98.559			
3,600.00	3,376.32	2,919.41	2,855.80	20.18	8.62	176.75	594.32	-55.66	1,767.35	1,749.43	17.93	98.596			
3,700.00	3,466.87	2,989.71	2,922.39	20.88	9.04	176.42	614.64	-65.44	1,834.48	1,815.96	18.51	99.101			
3,800.00	3,557.41	3,058.56	2,987.55	21.59	9.46	176.12	634.68	-75.07	1,901.80	1,882.70	19.10	99.590			
3,900.00	3,647.96	3,167.77	3,091.20	22.29	10.10	175.70	665.76	-89.76	1,968.66	1,948.67	19.98	98.507			
4,000.00	3,738.50	3,248.70	3,168.33	23.00	10.53	175.44	687.99	-100.15	2,034.71	2,014.08	20.63	98.629			
4,100.00	3,829.05	3,372.28	3,286.62	23.70	11.18	175.08	720.22	-115.57	2,099.64	2,078.05	21.59	97.246			
4,200.00	3,919.59	3,458.07	3,369.09	24.41	11.61	174.86	741.52	-125.86	2,163.61	2,141.34	22.27	97.161			
4,300.00	4,010.13	3,529.41	3,437.67	25.11	11.99	174.69	759.21	-134.34	2,227.56	2,204.72	22.85	97.503			
4,400.00	4,100.68	3,581.21	3,487.40	25.82	12.27	174.58	772.35	-140.47	2,292.00	2,268.71	23.28	98.436			
4,500.00	4,191.22	3,633.01	3,536.97	26.52	12.55	174.48	786.13	-146.46	2,357.35	2,333.63	23.72	99.375			
4,600.00	4,281.77	3,687.43	3,588.92	27.23	12.87	174.37	801.10	-152.72	2,423.43	2,399.25	24.18	100.217			
4,700.00	4,372.31	3,749.19	3,647.76	27.94	13.23	174.26	818.45	-159.91	2,489.99	2,465.29	24.70	100.810			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 COM 2H - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 197-Gyro, 1099-SDI MWD, 6361-SDI MWD, 7475-SDI MWD															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	36.10	174.71	127.40	216.26						
100.00	100.00	95.61	95.61	0.26	0.00	36.11	174.86	127.54	216.44	216.17	0.26	831.912	CC, ES		
200.00	200.00	194.66	194.66	0.62	0.00	36.13	175.32	127.99	217.07	216.45	0.62	350.765			
300.00	300.00	295.36	295.35	0.98	0.00	36.17	175.80	128.53	217.77	216.80	0.98	222.879			
400.00	400.00	396.03	396.02	1.34	0.00	36.23	175.95	128.94	218.14	216.80	1.34	163.338			
500.00	499.98	496.01	496.00	1.68	0.00	-145.74	175.98	129.29	219.81	218.13	1.68	131.006			
600.00	599.84	595.98	595.97	2.02	0.00	-146.38	176.00	129.63	224.37	222.35	2.01	111.354			
700.00	699.45	696.16	696.15	2.36	0.00	-147.48	175.99	129.72	231.72	229.36	2.36	98.113			
800.00	798.70	795.63	795.62	2.72	0.00	-148.96	175.95	129.47	241.93	239.21	2.72	89.041			
900.00	897.47	893.79	893.78	3.10	0.00	-150.68	176.04	129.23	255.45	252.37	3.08	82.938			
1,000.00	995.62	991.07	991.06	3.50	0.04	-152.52	176.35	129.10	272.52	269.03	3.49	78.093			
1,100.00	1,093.06	1,087.12	1,087.11	3.93	0.15	-154.39	177.01	129.13	293.35	289.38	3.97	73.852			
1,200.00	1,189.64	1,183.84	1,183.83	4.38	0.33	-156.25	177.84	129.22	317.81	313.28	4.54	70.055			
1,300.00	1,285.27	1,281.70	1,281.67	4.87	0.54	-158.28	178.76	128.05	345.32	340.20	5.12	67.415			
1,400.00	1,379.82	1,375.08	1,374.99	5.39	0.74	-160.39	180.13	124.99	376.15	370.44	5.71	65.833			
1,500.00	1,473.17	1,469.42	1,469.20	5.94	0.96	-162.60	181.99	120.31	410.58	404.26	6.32	64.959			
1,600.00	1,565.21	1,561.88	1,561.38	6.53	1.19	-164.84	184.11	113.55	448.39	441.45	6.94	64.630			
1,655.87	1,616.03	1,610.16	1,609.47	6.88	1.31	-165.98	185.37	109.48	471.15	463.88	7.27	64.796			
1,700.00	1,655.99	1,647.69	1,646.86	7.16	1.40	-166.89	186.47	106.46	489.82	482.29	7.53	65.061			
1,800.00	1,746.53	1,745.96	1,744.79	7.80	1.63	-168.98	188.88	98.55	532.08	523.93	8.16	65.245			
1,900.00	1,837.08	1,848.76	1,847.13	8.46	1.90	-170.92	189.33	88.95	572.76	563.93	8.82	64.909			
2,000.00	1,927.62	1,951.28	1,949.02	9.12	2.17	-172.69	187.83	77.79	611.90	602.38	9.52	64.298			
2,100.00	2,018.16	2,043.32	2,040.38	9.79	2.44	-174.17	185.68	66.82	650.48	640.29	10.18	63.878			
2,200.00	2,108.71	2,137.12	2,133.38	10.47	2.72	-175.58	183.28	54.81	689.10	678.23	10.88	63.353			
2,300.00	2,199.25	2,229.87	2,225.33	11.15	2.99	-176.82	180.62	42.98	727.75	716.20	11.55	62.988			
2,400.00	2,289.80	2,328.02	2,322.62	11.83	3.27	-177.99	177.25	30.41	766.14	753.88	12.27	62.460			
2,500.00	2,380.34	2,417.39	2,411.09	12.52	3.56	-179.01	173.94	18.26	804.47	791.50	12.96	62.069			
2,600.00	2,470.88	2,499.76	2,492.68	13.21	3.80	-179.86	171.41	7.25	843.58	829.98	13.60	62.021			
2,700.00	2,561.43	2,587.84	2,580.11	13.90	4.04	-179.39	169.36	-3.23	883.60	869.34	14.25	61.999			
2,800.00	2,651.97	2,685.59	2,677.28	14.59	4.31	-178.73	166.90	-13.54	923.58	908.62	14.96	61.745			
2,900.00	2,742.52	2,785.68	2,776.68	15.29	4.60	-178.07	163.46	-24.82	962.79	947.09	15.70	61.321			
3,000.00	2,833.06	2,881.52	2,871.71	15.98	4.90	-177.42	159.50	-36.62	1,001.47	985.02	16.44	60.912			
3,100.00	2,923.60	2,963.13	2,952.55	16.68	5.16	-176.87	156.30	-47.32	1,040.44	1,023.34	17.10	60.858			
3,200.00	3,014.15	3,050.56	3,039.20	17.38	5.43	-176.32	153.67	-58.68	1,080.33	1,062.54	17.79	60.737			
3,300.00	3,104.69	3,135.66	3,123.52	18.08	5.68	-175.82	151.27	-69.87	1,120.48	1,102.02	18.46	60.694			
3,400.00	3,195.24	3,219.93	3,207.16	18.78	5.93	-175.41	149.56	-80.01	1,161.39	1,142.27	19.12	60.753			
3,500.00	3,285.78	3,309.60	3,296.23	19.48	6.18	-175.03	148.04	-90.28	1,202.63	1,182.83	19.80	60.745			
3,600.00	3,376.32	3,401.38	3,387.37	20.18	6.45	-174.66	146.42	-100.96	1,243.86	1,223.35	20.51	60.648			
3,700.00	3,466.87	3,492.93	3,478.16	20.88	6.74	-174.26	144.73	-112.63	1,285.11	1,263.87	21.24	60.498			
3,800.00	3,557.41	3,581.59	3,565.88	21.59	7.03	-173.83	142.90	-125.37	1,326.32	1,304.35	21.97	60.363	SF		
3,900.00	3,647.96	3,659.78	3,643.20	22.29	7.29	-173.45	141.80	-137.00	1,368.21	1,345.58	22.63	60.462			
4,000.00	3,738.50	3,746.01	3,728.57	23.00	7.56	-173.10	141.22	-149.05	1,410.75	1,387.43	23.32	60.491			
4,100.00	3,829.05	3,832.78	3,814.71	23.70	7.80	-172.83	140.99	-159.51	1,453.56	1,429.57	23.99	60.589			
4,200.00	3,919.59	3,921.68	3,903.13	24.41	8.03	-172.64	140.94	-168.72	1,496.46	1,471.80	24.66	60.692			
4,300.00	4,010.13	4,015.19	3,996.22	25.11	8.27	-172.49	140.91	-177.63	1,539.34	1,513.99	25.34	60.737			
4,400.00	4,100.68	4,101.26	4,081.94	25.82	8.49	-172.37	140.90	-185.35	1,582.19	1,556.21	25.98	60.900			
4,500.00	4,191.22	4,192.45	4,172.79	26.52	8.71	-172.26	141.11	-193.21	1,625.23	1,598.58	26.65	60.990			
4,600.00	4,281.77	4,275.32	4,255.34	27.23	8.93	-172.17	141.31	-200.45	1,668.30	1,641.04	27.27	61.184			
4,700.00	4,372.31	4,356.49	4,336.15	27.94	9.14	-172.07	141.99	-208.03	1,711.95	1,684.07	27.88	61.405			
4,800.00	4,462.85	4,439.79	4,419.08	28.64	9.36	-171.97	143.00	-215.74	1,755.95	1,727.44	28.51	61.601			
4,900.00	4,553.40	4,521.53	4,500.50	29.35	9.56	-171.89	144.38	-222.97	1,800.33	1,771.21	29.12	61.834			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 COM 2H - OH - OH													Offset Well Error:	0.00 ft
Survey Program: 197-Gyro, 1099-SDI MWD, 6361-SDI MWD, 7475-SDI MWD														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,643.94	4,605.04	4,583.67	30.06	9.78	171.82	146.14	-230.27	1,845.08	1,815.34	29.74	62.049		
5,100.00	4,734.49	4,733.86	4,712.05	30.76	10.09	171.74	148.43	-240.58	1,889.68	1,859.03	30.65	61.662		
5,200.00	4,825.03	4,882.01	4,859.61	31.47	10.47	171.61	145.09	-253.20	1,929.98	1,898.31	31.67	60.931		
5,300.00	4,915.57	4,959.27	4,936.51	32.18	10.67	171.53	142.71	-260.28	1,970.18	1,937.91	32.27	61.045		
5,400.00	5,006.12	5,030.11	5,007.02	32.89	10.86	171.46	141.55	-267.00	2,011.63	1,978.80	32.83	61.273		
5,500.00	5,096.66	5,115.85	5,092.38	33.59	11.10	171.38	140.78	-275.05	2,053.76	2,020.27	33.49	61.331		
5,600.00	5,187.21	5,210.26	5,186.19	34.30	11.37	171.24	139.55	-285.56	2,095.70	2,061.48	34.22	61.238		
5,700.00	5,277.75	5,299.73	5,274.81	35.01	11.65	171.04	138.17	-297.79	2,137.68	2,102.73	34.96	61.151		
5,800.00	5,368.29	5,388.85	5,362.86	35.72	11.95	170.81	136.63	-311.49	2,179.69	2,143.98	35.71	61.039		
5,900.00	5,458.84	5,475.52	5,448.46	36.43	12.25	170.60	135.26	-324.97	2,221.88	2,185.43	36.45	60.959		
6,000.00	5,549.38	5,564.36	5,536.10	37.14	12.55	170.36	133.84	-339.45	2,264.18	2,226.96	37.21	60.846		
6,100.00	5,639.93	5,653.36	5,623.91	37.84	12.86	170.13	132.52	-353.91	2,306.59	2,268.62	37.97	60.741		
6,200.00	5,730.47	5,750.16	5,719.66	38.55	13.17	169.94	131.11	-368.08	2,348.87	2,310.10	38.77	60.586		
6,300.00	5,821.02	5,840.57	5,809.34	39.26	13.44	169.81	129.96	-379.45	2,391.10	2,351.61	39.49	60.547		
6,400.00	5,911.56	5,938.25	5,906.48	39.97	13.71	169.74	128.78	-389.64	2,433.12	2,392.89	40.24	60.471		
6,500.00	6,002.10	6,021.09	5,988.99	40.68	13.92	169.71	128.01	-396.89	2,475.22	2,434.36	40.86	60.575		
6,600.00	6,092.65	6,107.35	6,075.02	41.39	14.12	169.72	127.60	-403.15	2,517.54	2,476.04	41.49	60.675		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 COM 3H - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 226-Gyro, 1195-SDI MWD, 6561-SDI MWD, 7749-SDI MWD															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	37.73	155.90	120.62	197.15						
100.00	100.00	97.10	97.10	0.26	0.00	37.73	155.80	120.53	196.97	196.71	0.26	757.398			
200.00	200.00	197.71	197.71	0.62	0.00	37.72	155.46	120.22	196.52	195.90	0.62	317.642			
300.00	300.00	298.02	298.02	0.98	0.00	37.71	154.90	119.77	195.81	194.83	0.98	200.386			
400.00	400.00	398.20	398.19	1.34	0.00	37.75	154.18	119.37	194.99	193.66	1.34	145.996			
430.84	430.84	429.06	429.05	1.44	0.00	-144.07	153.92	119.26	194.86	193.42	1.44	135.218 CC, ES			
500.00	499.98	498.26	498.25	1.68	0.00	-144.27	153.31	119.06	195.53	193.85	1.68	116.565			
600.00	599.84	598.12	598.11	2.02	0.00	-144.98	152.32	118.84	198.88	196.87	2.01	98.759			
700.00	699.45	697.36	697.34	2.36	0.00	-146.23	151.55	118.60	205.31	202.95	2.36	86.958			
800.00	798.70	796.06	796.04	2.72	0.00	-147.92	151.12	118.26	215.01	212.30	2.72	79.140			
900.00	897.47	893.89	893.87	3.10	0.00	-149.96	151.23	117.77	228.29	225.21	3.08	74.113			
1,000.00	995.62	990.98	990.95	3.50	0.00	-152.17	151.81	117.31	245.33	241.88	3.45	71.116			
1,100.00	1,093.06	1,093.41	1,093.38	3.93	0.09	-154.44	151.83	116.89	265.38	261.47	3.91	67.895			
1,200.00	1,189.64	1,198.72	1,198.64	4.38	0.22	-156.76	149.33	115.17	286.30	281.87	4.42	64.711			
1,300.00	1,285.27	1,312.22	1,311.82	4.87	0.52	-159.33	142.32	110.61	306.46	301.35	5.11	60.026			
1,400.00	1,379.82	1,418.09	1,416.97	5.39	0.84	-161.77	131.92	104.07	326.23	320.47	5.75	56.689			
1,500.00	1,473.17	1,520.95	1,518.91	5.94	1.18	-163.99	119.97	97.31	348.00	341.60	6.40	54.353			
1,600.00	1,565.21	1,628.80	1,625.39	6.53	1.57	-166.17	104.73	89.58	370.99	363.91	7.09	52.349			
1,655.87	1,616.03	1,690.84	1,686.36	6.88	1.82	-167.39	94.44	84.53	384.03	376.54	7.49	51.299			
1,700.00	1,655.99	1,741.54	1,735.98	7.16	2.04	-168.37	84.95	80.25	393.90	386.09	7.80	50.469			
1,800.00	1,746.53	1,851.65	1,843.13	7.80	2.54	-170.16	61.21	71.41	413.83	405.32	8.52	48.584			
1,900.00	1,837.08	1,964.17	1,951.80	8.46	3.10	-171.55	33.11	63.60	430.90	421.65	9.25	46.595			
2,000.00	1,927.62	2,073.13	2,056.16	9.12	3.70	-172.88	3.04	54.85	445.29	435.30	9.99	44.580			
2,100.00	2,018.16	2,180.44	2,158.26	9.79	4.33	-174.08	-28.78	45.98	457.73	446.99	10.74	42.604			
2,200.00	2,108.71	2,286.11	2,258.27	10.47	4.98	-175.18	-61.73	37.24	468.76	457.25	11.51	40.716			
2,300.00	2,199.25	2,393.34	2,359.23	11.15	5.68	-176.29	-96.63	27.84	478.46	466.15	12.30	38.883			
2,400.00	2,289.80	2,488.47	2,448.46	11.83	6.25	-177.28	-128.35	18.96	487.40	474.33	13.08	37.277			
2,500.00	2,380.34	2,576.16	2,531.25	12.52	6.72	-178.24	-155.94	10.28	498.43	484.60	13.82	36.056			
2,600.00	2,470.88	2,672.94	2,623.00	13.21	7.25	-179.49	-184.49	-1.25	511.47	496.85	14.62	34.974			
2,700.00	2,561.43	2,765.03	2,710.19	13.90	7.77	-179.31	-211.76	-12.91	524.65	509.21	15.44	33.986			
2,800.00	2,651.97	2,857.07	2,797.87	14.59	8.26	-178.18	-237.23	-24.41	540.02	523.77	16.25	33.233			
2,900.00	2,742.52	2,961.00	2,896.93	15.29	8.82	-177.03	-266.12	-36.82	555.52	538.39	17.12	32.440			
3,000.00	2,833.06	3,067.66	2,998.18	15.98	9.47	-175.95	-297.26	-49.29	569.76	551.72	18.04	31.581			
3,100.00	2,923.60	3,166.12	3,091.49	16.68	10.04	-175.05	-326.78	-60.14	583.35	564.43	18.92	30.834			
3,200.00	3,014.15	3,252.75	3,173.89	17.38	10.50	-174.35	-351.91	-69.28	598.07	578.35	19.73	30.316			
3,300.00	3,104.69	3,341.22	3,258.51	18.08	10.94	-173.64	-375.79	-78.98	614.95	594.41	20.54	29.942			
3,400.00	3,195.24	3,446.45	3,359.25	18.78	11.50	-172.79	-403.73	-91.05	632.46	611.00	21.46	29.471			
3,500.00	3,285.78	3,558.28	3,465.30	19.48	12.16	-171.71	-435.75	-106.24	648.09	625.59	22.50	28.803			
3,600.00	3,376.32	3,669.66	3,569.73	20.18	12.89	-170.43	-470.15	-124.00	661.77	638.14	23.63	28.009			
3,700.00	3,466.87	3,766.27	3,660.22	20.88	13.50	-169.41	-500.63	-138.70	674.96	650.30	24.66	27.369			
3,800.00	3,557.41	3,858.04	3,746.64	21.59	14.03	-168.64	-528.94	-151.00	688.87	663.25	25.62	26.887			
3,900.00	3,647.96	3,940.01	3,824.50	22.29	14.48	-168.10	-552.64	-160.73	704.66	678.18	26.48	26.612			
4,000.00	3,738.50	4,035.01	3,915.31	23.00	14.97	-167.59	-578.53	-171.12	722.06	694.68	27.38	26.374			
4,100.00	3,829.05	4,157.03	4,031.32	23.70	15.68	-166.93	-613.84	-184.56	737.80	709.33	28.47	25.911			
4,200.00	3,919.59	4,263.40	4,131.90	24.41	16.34	-166.35	-646.46	-196.24	751.90	722.40	29.51	25.483			
4,300.00	4,010.13	4,366.02	4,228.39	25.11	16.98	-165.76	-679.31	-208.03	764.75	734.21	30.54	25.041			
4,400.00	4,100.68	4,460.28	4,317.12	25.82	17.55	-165.20	-709.08	-219.34	778.22	746.68	31.54	24.675			
4,500.00	4,191.22	4,549.09	4,400.59	26.52	18.08	-164.61	-736.94	-231.27	792.30	759.77	32.53	24.356			
4,600.00	4,281.77	4,634.12	4,481.01	27.23	18.58	-164.07	-761.97	-242.89	808.39	774.90	33.49	24.135			
4,700.00	4,372.31	4,730.94	4,572.44	27.94	19.16	-163.37	-790.13	-257.82	825.33	790.74	34.59	23.859			
4,800.00	4,462.85	4,829.32	4,664.97	28.64	19.77	-162.57	-819.11	-274.47	842.35	806.59	35.76	23.555			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 COM 3H - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 226-Gyro, 1195-SDI MWD, 6561-SDI MWD, 7749-SDI MWD															
Reference		Offset		Semi Major Axis			Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
4,900.00	4,553.40	4,929.34	4,759.13	29.35	20.39	161.83	-848.48	-291.05	859.53	822.59	36.94	23.267			
5,000.00	4,643.94	5,039.02	4,862.21	30.06	21.08	161.05	-881.47	-308.82	876.07	837.85	38.22	22.923			
5,100.00	4,734.49	5,132.82	4,950.24	30.76	21.67	160.44	-910.39	-323.41	891.83	852.48	39.35	22.667			
5,200.00	4,825.03	5,209.37	5,022.72	31.47	22.11	160.05	-932.47	-334.26	909.29	869.04	40.25	22.591 SF			
5,300.00	4,915.57	5,284.26	5,094.69	32.18	22.49	159.86	-951.28	-342.86	929.56	888.54	41.03	22.658			
5,400.00	5,006.12	5,377.09	5,184.59	32.89	22.92	159.79	-972.78	-351.41	951.15	909.30	41.86	22.725			
5,500.00	5,096.66	5,473.16	5,277.85	33.59	23.37	159.79	-994.41	-359.39	973.10	930.42	42.68	22.799			
5,600.00	5,187.21	5,572.83	5,374.52	34.30	23.84	159.77	-1,017.09	-368.06	994.94	951.38	43.56	22.843			
5,700.00	5,277.75	5,678.96	5,477.33	35.01	24.36	159.72	-1,041.64	-377.52	1,016.48	971.99	44.50	22.844			
5,800.00	5,368.29	5,782.99	5,577.84	35.72	24.87	159.66	-1,066.88	-386.69	1,036.90	991.47	45.42	22.827			
5,900.00	5,458.84	5,868.87	5,660.89	36.43	25.28	159.62	-1,087.43	-394.14	1,057.63	1,011.43	46.19	22.895			
6,000.00	5,549.38	5,952.88	5,742.47	37.14	25.65	159.62	-1,106.18	-401.31	1,079.82	1,032.90	46.92	23.014			
6,100.00	5,639.93	6,039.52	5,826.92	37.84	26.01	159.68	-1,124.41	-407.72	1,102.91	1,055.29	47.62	23.161			
6,200.00	5,730.47	6,118.47	5,904.22	38.55	26.32	159.81	-1,139.70	-412.60	1,127.25	1,079.04	48.21	23.383			
6,300.00	5,821.02	6,197.01	5,981.52	39.26	26.60	159.98	-1,152.92	-416.99	1,153.68	1,104.94	48.75	23.667			
6,400.00	5,911.56	6,259.67	6,043.44	39.97	26.79	160.16	-1,161.94	-420.16	1,182.17	1,133.07	49.10	24.077			
6,500.00	6,002.10	6,332.48	6,115.63	40.68	27.00	160.41	-1,170.88	-423.26	1,212.57	1,163.09	49.49	24.502			
6,600.00	6,092.65	6,407.09	6,189.80	41.39	27.19	160.70	-1,178.50	-425.86	1,244.71	1,194.85	49.86	24.965			
6,700.00	6,183.19	6,495.92	6,274.66	42.10	27.66	162.54	-1,215.37	-415.11	1,277.13	1,226.27	50.86	25.111			
6,800.00	6,273.74	6,750.01	6,526.31	42.81	27.70	163.36	-1,223.31	-401.20	1,297.37	1,246.55	50.81	25.533			
6,900.00	6,364.28	6,838.77	6,608.55	43.52	27.67	165.10	-1,231.52	-369.06	1,320.51	1,270.10	50.42	26.192			
7,000.00	6,454.82	6,946.10	6,701.87	44.23	27.58	167.70	-1,240.15	-316.98	1,342.96	1,293.19	49.77	26.982			
7,078.44	6,525.85	7,003.01	6,748.01	44.78	27.51	169.28	-1,242.96	-283.80	1,362.59	1,313.18	49.42	27.574			
7,100.00	6,545.36	7,027.70	6,767.23	44.93	27.47	164.87	-1,244.04	-268.34	1,368.11	1,318.84	49.27	27.769			
7,150.00	6,590.41	7,077.35	6,804.23	45.28	27.40	155.02	-1,246.24	-235.34	1,380.74	1,331.77	48.97	28.194			
7,200.00	6,634.92	7,097.01	6,818.06	45.63	27.38	145.28	-1,246.88	-221.38	1,393.92	1,345.14	48.78	28.576			
7,250.00	6,678.53	7,109.17	6,826.39	45.95	27.35	136.56	-1,247.16	-212.53	1,407.83	1,359.27	48.56	28.989			
7,300.00	6,720.93	7,118.60	6,832.73	46.26	27.34	129.01	-1,247.30	-205.55	1,422.50	1,374.20	48.30	29.451			
7,350.00	6,761.78	7,129.01	6,839.62	46.56	27.32	122.62	-1,247.40	-197.74	1,437.89	1,389.89	48.00	29.956			
7,400.00	6,800.78	7,129.01	6,839.62	46.84	27.32	116.74	-1,247.40	-197.74	1,453.90	1,406.24	47.66	30.508			
7,450.00	6,837.62	7,129.01	6,839.62	47.10	27.32	111.61	-1,247.40	-197.74	1,470.45	1,423.16	47.29	31.095			
7,500.00	6,872.04	7,129.01	6,839.62	47.34	27.32	107.10	-1,247.40	-197.74	1,487.40	1,440.48	46.91	31.704			
7,550.00	6,903.76	7,129.01	6,839.62	47.57	27.32	103.10	-1,247.40	-197.74	1,504.61	1,458.05	46.56	32.318			
7,600.00	6,932.55	7,129.01	6,839.62	47.79	27.32	99.54	-1,247.40	-197.74	1,521.94	1,475.70	46.24	32.915			
7,650.00	6,958.18	7,115.72	6,830.81	47.99	27.34	95.85	-1,247.27	-207.69	1,539.13	1,493.26	45.86	33.559			
7,700.00	6,980.47	7,108.53	6,825.95	48.18	27.36	92.75	-1,247.14	-213.00	1,556.12	1,510.52	45.59	34.130			
7,750.00	6,999.24	7,097.01	6,818.06	48.35	27.38	89.84	-1,246.88	-221.38	1,572.71	1,527.36	45.35	34.676			
7,800.00	7,014.34	7,097.01	6,818.06	48.52	27.38	87.63	-1,246.88	-221.38	1,588.75	1,543.41	45.34	35.039			
7,850.00	7,025.67	7,080.12	6,806.21	48.68	27.40	85.19	-1,246.34	-233.40	1,604.02	1,558.78	45.24	35.457			
7,900.00	7,033.14	7,066.01	6,796.04	48.83	27.42	83.16	-1,245.77	-243.17	1,618.44	1,573.18	45.26	35.758			
7,950.00	7,036.69	7,052.97	6,786.44	48.97	27.44	81.48	-1,245.19	-251.97	1,631.82	1,586.41	45.41	35.935			
7,971.61	7,037.00	7,045.38	6,780.76	49.03	27.45	80.80	-1,244.84	-257.00	1,637.22	1,591.75	45.48	36.001			
8,000.00	7,036.93	7,034.01	6,772.14	49.11	27.46	80.50	-1,244.32	-264.39	1,644.34	1,598.78	45.56	36.088			
8,100.00	7,036.66	7,003.01	6,748.01	49.44	27.51	79.65	-1,242.96	-283.80	1,672.08	1,625.93	46.15	36.233			
8,200.00	7,036.40	6,971.01	6,722.35	49.87	27.55	78.76	-1,241.51	-302.86	1,703.99	1,657.10	46.90	36.335			
8,300.00	7,036.14	6,940.01	6,696.79	50.41	27.59	77.88	-1,239.78	-320.31	1,740.31	1,692.51	47.80	36.405			
8,400.00	7,035.88	6,940.01	6,696.79	51.10	27.59	77.88	-1,239.78	-320.31	1,780.94	1,731.61	49.33	36.100			
8,500.00	7,035.62	6,908.01	6,669.66	51.97	27.62	76.96	-1,237.40	-337.11	1,825.53	1,775.12	50.41	36.216			
8,600.00	7,035.36	6,894.57	6,658.06	53.05	27.63	76.57	-1,236.25	-343.79	1,873.98	1,822.15	51.83	36.157			
8,700.00	7,035.10	6,877.01	6,642.70	54.35	27.64	76.06	-1,234.76	-352.18	1,925.93	1,872.74	53.19	36.211			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 604 COM 3H - OH - OH													Offset Well Error:	0.00 ft
Survey Program: 226-Gyro, 1195-SDI MWD, 6561-SDI MWD, 7749-SDI MWD														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
8,800.00	7,034.83	6,857.41	6,625.32	55.87	27.65	75.48	-1,233.11	-361.09	1,981.12	1,926.62	54.50	36.348		
8,900.00	7,034.57	6,845.01	6,614.21	57.61	27.66	75.11	-1,232.04	-366.49	2,039.37	1,983.46	55.91	36.476		
9,000.00	7,034.31	6,823.37	6,594.62	59.52	27.67	74.47	-1,230.21	-375.50	2,100.40	2,043.24	57.16	36.744		
9,100.00	7,034.05	6,814.01	6,586.07	61.59	27.68	74.19	-1,229.45	-379.23	2,164.05	2,105.53	58.52	36.977		
9,200.00	7,033.79	6,800.83	6,573.95	63.79	27.69	73.80	-1,228.35	-384.28	2,230.16	2,170.39	59.77	37.311		
9,300.00	7,033.53	6,782.01	6,556.46	66.09	27.69	73.23	-1,226.64	-391.02	2,298.69	2,237.81	60.88	37.756		
9,400.00	7,033.27	6,782.01	6,556.46	68.49	27.69	73.23	-1,226.64	-391.02	2,369.14	2,307.00	62.15	38.123		
9,500.00	7,033.00	6,782.01	6,556.46	70.95	27.69	73.23	-1,226.64	-391.02	2,441.66	2,378.33	63.33	38.557		
9,600.00	7,032.74	6,782.01	6,556.46	73.48	27.69	73.23	-1,226.64	-391.02	2,516.06	2,451.63	64.43	39.053		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
NEBU 604 Pad - NEBU 77 - OH - OH														Offset Well Error:	0.00 ft
Survey Program: 237-INCLINOMETER															
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
15,100.00	7,018.36	6,065.00	6,063.61	233.66	184.18	35.16	-2,167.79	-10,010.58	2,510.15	2,250.53	259.62	9.669			
15,200.00	7,018.10	6,065.00	6,063.61	236.66	184.18	35.16	-2,167.79	-10,010.58	2,421.81	2,160.66	261.15	9.274			
15,300.00	7,017.84	6,065.00	6,063.61	239.67	184.18	35.16	-2,167.79	-10,010.58	2,334.41	2,071.65	262.76	8.884			
15,400.00	7,017.58	6,065.00	6,063.61	242.68	184.18	35.16	-2,167.79	-10,010.58	2,248.05	1,983.61	264.45	8.501			
15,500.00	7,017.32	6,065.00	6,063.61	245.69	184.18	35.16	-2,167.79	-10,010.58	2,162.88	1,896.67	266.21	8.125			
15,600.00	7,017.05	6,065.00	6,063.61	248.70	184.18	35.16	-2,167.79	-10,010.58	2,079.02	1,810.97	268.05	7.756			
15,700.00	7,016.79	6,065.00	6,063.61	251.71	184.18	35.16	-2,167.79	-10,010.58	1,996.65	1,726.70	269.95	7.396			
15,800.00	7,016.53	6,065.00	6,063.61	254.72	184.18	35.16	-2,167.79	-10,010.58	1,915.96	1,644.05	271.91	7.046			
15,900.00	7,016.27	6,065.00	6,063.61	257.74	184.18	35.16	-2,167.79	-10,010.58	1,837.17	1,563.27	273.91	6.707			
16,000.00	7,016.01	6,065.00	6,063.61	260.75	184.18	35.16	-2,167.79	-10,010.58	1,760.54	1,484.62	275.92	6.381			
16,100.00	7,015.75	6,065.00	6,063.61	263.76	184.18	35.16	-2,167.79	-10,010.58	1,686.35	1,408.43	277.93	6.068			
16,200.00	7,015.49	6,065.00	6,063.61	266.78	184.18	35.16	-2,167.79	-10,010.58	1,614.96	1,335.07	279.88	5.770			
16,300.00	7,015.22	6,065.00	6,063.61	269.79	184.18	35.16	-2,167.79	-10,010.58	1,546.73	1,264.98	281.75	5.490			
16,400.00	7,014.96	6,065.00	6,063.61	272.81	184.18	35.16	-2,167.79	-10,010.58	1,482.12	1,198.65	283.47	5.229			
16,500.00	7,014.70	6,065.00	6,063.61	275.82	184.18	35.16	-2,167.79	-10,010.58	1,421.61	1,136.62	284.99	4.988			
16,600.00	7,014.44	6,065.00	6,063.61	278.84	184.18	35.16	-2,167.79	-10,010.58	1,365.74	1,079.50	286.25	4.771			
16,700.00	7,014.18	6,065.00	6,063.61	281.86	184.18	35.16	-2,167.79	-10,010.58	1,315.12	1,027.92	287.21	4.579			
16,800.00	7,013.92	6,065.00	6,063.61	284.88	184.18	35.16	-2,167.79	-10,010.58	1,270.37	982.53	287.84	4.413			
16,900.00	7,013.65	6,065.00	6,063.61	287.89	184.18	35.16	-2,167.79	-10,010.58	1,232.13	943.94	288.18	4.275			
17,000.00	7,013.39	6,065.00	6,063.61	290.91	184.18	35.16	-2,167.79	-10,010.58	1,201.01	912.71	288.30	4.166			
17,100.00	7,013.13	6,065.00	6,063.61	293.93	184.18	35.16	-2,167.79	-10,010.58	1,177.59	889.25	288.34	4.084			
17,200.00	7,012.87	6,065.00	6,063.61	296.95	184.18	35.16	-2,167.79	-10,010.58	1,162.33	873.87	288.46	4.029			
17,300.00	7,012.61	6,065.00	6,063.61	299.97	184.18	35.16	-2,167.79	-10,010.58	1,155.55	866.73	288.83	4.001			
17,328.54	7,012.53	6,065.00	6,063.61	300.83	184.18	35.16	-2,167.79	-10,010.58	1,155.20	866.21	288.99	3.997 CC, ES, SF			
17,400.00	7,012.35	6,065.00	6,063.61	302.99	184.18	35.16	-2,167.79	-10,010.58	1,157.41	867.91	289.50	3.998			
17,500.00	7,012.09	6,065.00	6,063.61	306.01	184.18	35.16	-2,167.79	-10,010.58	1,167.86	877.41	290.45	4.021			
17,600.00	7,011.82	6,065.00	6,063.61	309.04	184.18	35.16	-2,167.79	-10,010.58	1,186.67	895.15	291.52	4.071			
17,700.00	7,011.56	6,065.00	6,063.61	312.06	184.18	35.16	-2,167.79	-10,010.58	1,213.46	920.94	292.52	4.148			
17,800.00	7,011.30	6,065.00	6,063.61	315.08	184.18	35.16	-2,167.79	-10,010.58	1,247.70	954.42	293.28	4.254			
17,900.00	7,011.04	6,065.00	6,063.61	318.10	184.18	35.16	-2,167.79	-10,010.58	1,288.82	995.14	293.68	4.388			
18,000.00	7,010.78	6,065.00	6,063.61	321.12	184.18	35.16	-2,167.79	-10,010.58	1,336.17	1,042.50	293.67	4.550			
18,100.00	7,010.52	6,065.00	6,063.61	324.15	184.18	35.16	-2,167.79	-10,010.58	1,389.12	1,095.86	293.25	4.737			
18,200.00	7,010.26	6,065.00	6,063.61	327.17	184.18	35.16	-2,167.79	-10,010.58	1,447.04	1,154.58	292.46	4.948			
18,300.00	7,009.99	6,065.00	6,063.61	330.20	184.18	35.16	-2,167.79	-10,010.58	1,509.38	1,218.02	291.36	5.181			
18,400.00	7,009.73	6,065.00	6,063.61	333.22	184.18	35.16	-2,167.79	-10,010.58	1,575.60	1,285.60	290.01	5.433			
18,500.00	7,009.47	6,065.00	6,063.61	336.24	184.18	35.16	-2,167.79	-10,010.58	1,645.24	1,356.77	288.47	5.703			
18,600.00	7,009.21	6,065.00	6,063.61	339.27	184.18	35.16	-2,167.79	-10,010.58	1,717.88	1,431.06	286.82	5.989			
18,700.00	7,008.95	6,065.00	6,063.61	342.29	184.18	35.16	-2,167.79	-10,010.58	1,793.15	1,508.07	285.08	6.290			
18,800.00	7,008.69	6,065.00	6,063.61	345.32	184.18	35.16	-2,167.79	-10,010.58	1,870.75	1,587.43	283.31	6.603			
18,900.00	7,008.43	6,065.00	6,063.61	348.35	184.18	35.16	-2,167.79	-10,010.58	1,950.38	1,668.84	281.54	6.928			
19,000.00	7,008.16	6,065.00	6,063.61	351.37	184.18	35.16	-2,167.79	-10,010.58	2,031.82	1,752.04	279.78	7.262			
19,100.00	7,007.90	6,065.00	6,063.61	354.40	184.18	35.16	-2,167.79	-10,010.58	2,114.85	1,836.79	278.05	7.606			
19,200.00	7,007.64	6,065.00	6,063.61	357.42	184.18	35.16	-2,167.79	-10,010.58	2,199.29	1,922.91	276.38	7.958			
19,300.00	7,007.38	6,065.00	6,063.61	360.45	184.18	35.16	-2,167.79	-10,010.58	2,284.98	2,010.23	274.76	8.316			
19,400.00	7,007.12	6,065.00	6,063.61	363.48	184.18	35.16	-2,167.79	-10,010.58	2,371.80	2,098.60	273.20	8.682			
19,500.00	7,006.86	6,065.00	6,063.61	366.50	184.18	35.16	-2,167.79	-10,010.58	2,459.62	2,187.92	271.71	9.053			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



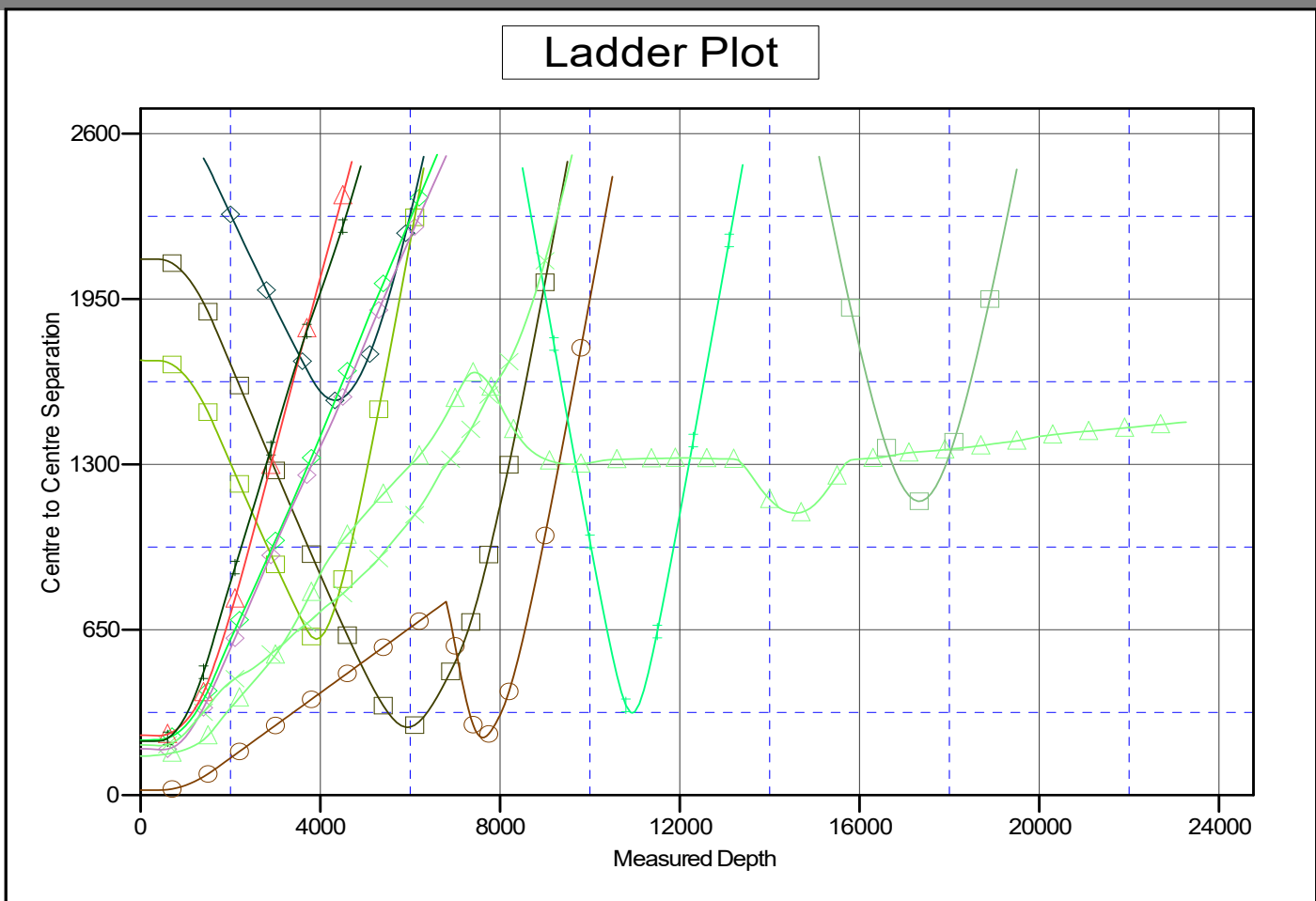
Scientific Drilling
Anticollision Report



Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 6501' & RKB 27.5' @ 6528.50ft (C
 Offset Depths are relative to Offset Datum
 Central Meridian is -107.8333334

Coordinates are relative to: NEBU 604 7H - Slot 7H
 Coordinate System is US State Plane 1983, New Mexico Western Zone
 Grid Convergence at Surface is: 0.18°



LEGEND

- NEBU 311M, OH, OH V0
- ◆ NEBU 6044H, OH, OH V0
- ▲ NEBU 604COM 1H, OH, OH V0
- ◆ NEBU 324P, OH, OH V0
- ◆ NEBU 6046H, OH, OH V0
- ◆ NEBU 604COM 2H, OH, OH V0
- ◆ NEBU 490A, OH, OH V0
- ▲ NEBU 6048H, OH, OH V0
- × NEBU 604COM 3H, OH, OH V0
- NEBU 498, OH, OH V0
- NEBU 6049H, OH, Plan #4 V0
- NEBU 77, OH, OH V0

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report

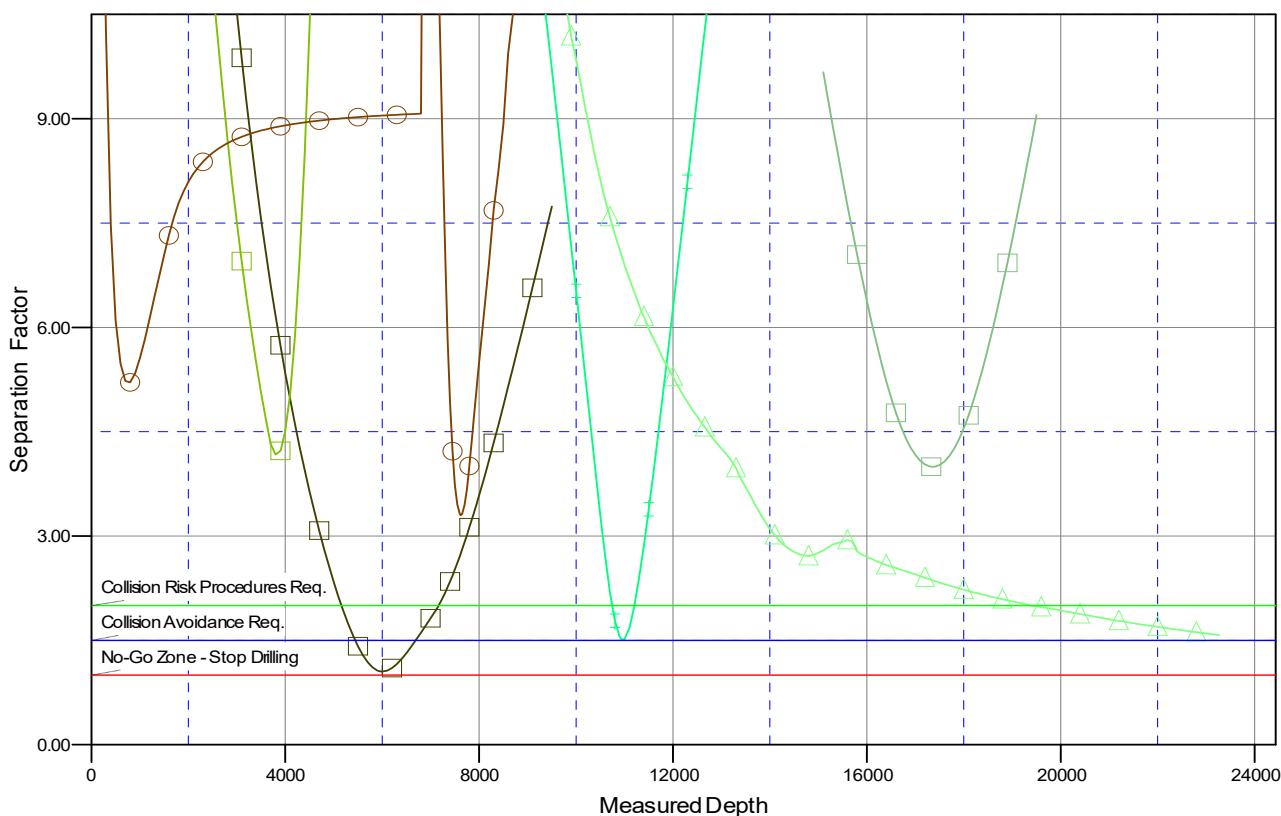


Company:	Mach Natural Resources	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Project:	San Juan County, NM NAD83	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Reference Site:	NEBU 604 Pad	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Grand Junction
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 6501' & RKB 27.5' @ 6528.50ft (C)
Offset Depths are relative to Offset Datum
Central Meridian is -107.8333334

Coordinates are relative to: NEBU 604 7H - Slot 7H
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.18°

Separation Factor Plot



LEGEND

- | | | |
|----------------------|----------------------------|----------------------------|
| NEBU 311M, OH, OH V0 | NEBU 6044H, OH, OH V0 | NEBU 604 COM 1H, OH, OH V0 |
| NEBU 324P, OH, OH V0 | NEBU 6046H, OH, OH V0 | NEBU 604 COM 2H, OH, OH V0 |
| NEBU 490A, OH, OH V0 | NEBU 6048H, OH, OH V0 | NEBU 604 COM 3H, OH, OH V0 |
| NEBU 498, OH, OH V0 | NEBU 6049H, OH, Plan #4 V0 | NEBU 77, OH, OH V0 |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

		GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)					
+N/-S+E/-W		Northing	Easting	Latitude	Longitude	Slot	
0.00	0.00	2147469.85	2811874.56	36.9011050	-107.5296840	7H	

PLAN DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Annotation
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	Start Build 2.00
1655.87	25.12	181.804	1616.03	-270.76	-8.53	2.00	55.95	Start 5422.57 hold at 1655.87 MD
7078.44	25.12	181.804	6525.85	-2571.35	-81.00	0.00	531.33	Start DLS 10.00 TFO 88.19
7971.61	90.15	269.876	7037.00	-2812.78	-654.73	10.00	1138.55	Start 15298.01 hold at 7971.61 MD
23269.63	90.15	269.876	6997.00	-2845.88	-15952.66	0.00	16204.52	TD at 23269.63

Plan: Plan #2 (NEBU 604 7H/OH)

Created By: Janie Collins Date: 12:22, March 03 2026



Azimuths to Grid North
True North: -0.18°
Magnetic North: 8.18°

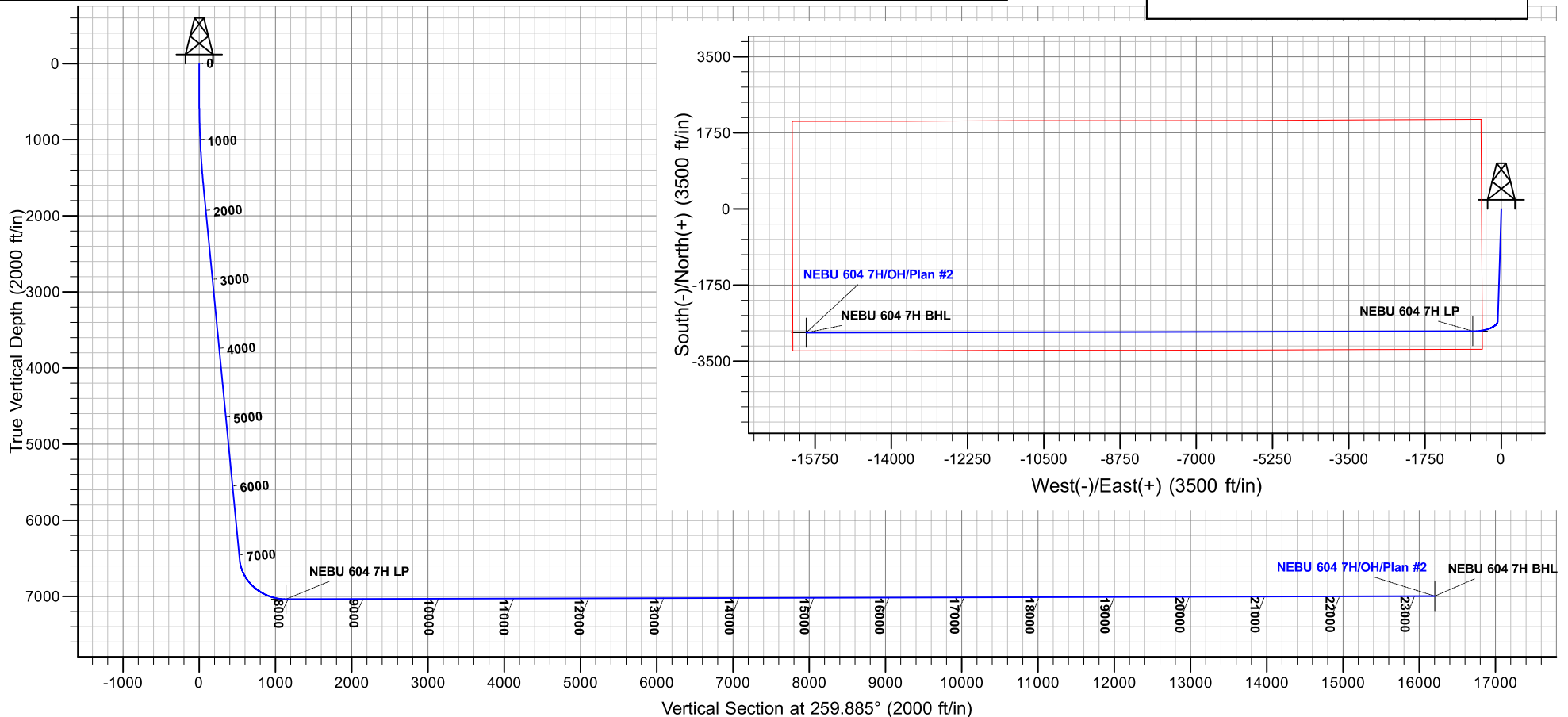
Magnetic Field
Strength: 49091.8nT
Dip Angle: 63.17°
Date: 4/1/2026
Model: HDGM2026

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
NEBU 604 7H LP	7037.00	-2812.78	-654.73	2144657.07	2811219.82	36.8933847	-107.5319536
NEBU 604 7H BHL	6997.00	-2845.88	-15952.66	2144623.98	2795921.93	36.8934150	-107.5842690

CASING DETAILS

No casing data is available





Mach Natural Resources

San Juan County, NM NAD83

NEBU 604 Pad

NEBU 604 7H - Slot 7H

OH

Plan: Plan #2

Standard Planning Report

09 March, 2026



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Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Company:	Mach Natural Resources	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Project:	San Juan County, NM NAD83	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site:	NEBU 604 Pad	North Reference:	Grid
Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Project	San Juan County, NM NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	NEBU 604 Pad				
Site Position:		Northing:	2,147,677.25 usft	Latitude:	36.9016743
From:	Lat/Long	Easting:	2,811,918.26 usft	Longitude:	-107.5295323
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	0.18 °

Well	NEBU 604 7H - Slot 7H					
Well Position	+N/-S	-207.40 ft	Northing:	2,147,469.84 usft	Latitude:	36.9011050
	+E/-W	-43.70 ft	Easting:	2,811,874.56 usft	Longitude:	-107.5296840
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	6,501.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2026	4/1/2026	8.37	63.17	49,091.80000000

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	259.885

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,655.87	25.12	181.804	1,616.03	-270.76	-8.53	2.00	2.00	0.00	181.80	
7,078.44	25.12	181.804	6,525.85	-2,571.35	-81.00	0.00	0.00	0.00	0.00	
7,971.61	90.15	269.876	7,037.00	-2,812.78	-654.73	10.00	7.28	9.86	88.19	NEBU 604 7H LP
23,269.63	90.15	269.876	6,997.00	-2,845.88	-15,952.66	0.00	0.00	0.00	0.00	NEBU 604 7H BHL



Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Company:	Mach Natural Resources	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Project:	San Juan County, NM NAD83	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site:	NEBU 604 Pad	North Reference:	Grid
Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	2.00	181.804	499.98	-1.74	-0.05	0.36	2.00	2.00	2.00	0.00
600.00	4.00	181.804	599.84	-6.98	-0.22	1.44	2.00	2.00	2.00	0.00
700.00	6.00	181.804	699.45	-15.69	-0.49	3.24	2.00	2.00	2.00	0.00
800.00	8.00	181.804	798.70	-27.87	-0.88	5.76	2.00	2.00	2.00	0.00
900.00	10.00	181.804	897.47	-43.50	-1.37	8.99	2.00	2.00	2.00	0.00
1,000.00	12.00	181.804	995.62	-62.57	-1.97	12.93	2.00	2.00	2.00	0.00
1,100.00	14.00	181.804	1,093.06	-85.05	-2.68	17.58	2.00	2.00	2.00	0.00
1,200.00	16.00	181.804	1,189.64	-110.92	-3.49	22.92	2.00	2.00	2.00	0.00
1,300.00	18.00	181.804	1,285.27	-140.14	-4.41	28.96	2.00	2.00	2.00	0.00
1,400.00	20.00	181.804	1,379.82	-172.68	-5.44	35.68	2.00	2.00	2.00	0.00
1,500.00	22.00	181.804	1,473.17	-208.50	-6.57	43.08	2.00	2.00	2.00	0.00
1,600.00	24.00	181.804	1,565.21	-247.55	-7.80	51.15	2.00	2.00	2.00	0.00
1,655.87	25.12	181.804	1,616.03	-270.76	-8.53	55.95	2.00	2.00	2.00	0.00
1,700.00	25.12	181.804	1,655.99	-289.48	-9.12	59.82	0.00	0.00	0.00	0.00
1,800.00	25.12	181.804	1,746.53	-331.91	-10.46	68.58	0.00	0.00	0.00	0.00
1,900.00	25.12	181.804	1,837.08	-374.33	-11.79	77.35	0.00	0.00	0.00	0.00
2,000.00	25.12	181.804	1,927.62	-416.76	-13.13	86.12	0.00	0.00	0.00	0.00
2,100.00	25.12	181.804	2,018.16	-459.19	-14.46	94.88	0.00	0.00	0.00	0.00
2,200.00	25.12	181.804	2,108.71	-501.61	-15.80	103.65	0.00	0.00	0.00	0.00
2,300.00	25.12	181.804	2,199.25	-544.04	-17.14	112.42	0.00	0.00	0.00	0.00
2,400.00	25.12	181.804	2,289.80	-586.47	-18.47	121.18	0.00	0.00	0.00	0.00
2,500.00	25.12	181.804	2,380.34	-628.89	-19.81	129.95	0.00	0.00	0.00	0.00
2,600.00	25.12	181.804	2,470.88	-671.32	-21.15	138.72	0.00	0.00	0.00	0.00
2,700.00	25.12	181.804	2,561.43	-713.74	-22.48	147.48	0.00	0.00	0.00	0.00
2,800.00	25.12	181.804	2,651.97	-756.17	-23.82	156.25	0.00	0.00	0.00	0.00
2,900.00	25.12	181.804	2,742.52	-798.60	-25.16	165.02	0.00	0.00	0.00	0.00
3,000.00	25.12	181.804	2,833.06	-841.02	-26.49	173.78	0.00	0.00	0.00	0.00
3,100.00	25.12	181.804	2,923.60	-883.45	-27.83	182.55	0.00	0.00	0.00	0.00
3,200.00	25.12	181.804	3,014.15	-925.88	-29.17	191.32	0.00	0.00	0.00	0.00
3,300.00	25.12	181.804	3,104.69	-968.30	-30.50	200.08	0.00	0.00	0.00	0.00
3,400.00	25.12	181.804	3,195.24	-1,010.73	-31.84	208.85	0.00	0.00	0.00	0.00
3,500.00	25.12	181.804	3,285.78	-1,053.15	-33.18	217.62	0.00	0.00	0.00	0.00
3,600.00	25.12	181.804	3,376.32	-1,095.58	-34.51	226.38	0.00	0.00	0.00	0.00
3,700.00	25.12	181.804	3,466.87	-1,138.01	-35.85	235.15	0.00	0.00	0.00	0.00
3,800.00	25.12	181.804	3,557.41	-1,180.43	-37.18	243.92	0.00	0.00	0.00	0.00
3,900.00	25.12	181.804	3,647.96	-1,222.86	-38.52	252.68	0.00	0.00	0.00	0.00
4,000.00	25.12	181.804	3,738.50	-1,265.28	-39.86	261.45	0.00	0.00	0.00	0.00
4,100.00	25.12	181.804	3,829.05	-1,307.71	-41.19	270.22	0.00	0.00	0.00	0.00
4,200.00	25.12	181.804	3,919.59	-1,350.14	-42.53	278.98	0.00	0.00	0.00	0.00
4,300.00	25.12	181.804	4,010.13	-1,392.56	-43.87	287.75	0.00	0.00	0.00	0.00
4,400.00	25.12	181.804	4,100.68	-1,434.99	-45.20	296.52	0.00	0.00	0.00	0.00
4,500.00	25.12	181.804	4,191.22	-1,477.42	-46.54	305.28	0.00	0.00	0.00	0.00
4,600.00	25.12	181.804	4,281.77	-1,519.84	-47.88	314.05	0.00	0.00	0.00	0.00
4,700.00	25.12	181.804	4,372.31	-1,562.27	-49.21	322.82	0.00	0.00	0.00	0.00
4,800.00	25.12	181.804	4,462.85	-1,604.69	-50.55	331.58	0.00	0.00	0.00	0.00
4,900.00	25.12	181.804	4,553.40	-1,647.12	-51.89	340.35	0.00	0.00	0.00	0.00
5,000.00	25.12	181.804	4,643.94	-1,689.55	-53.22	349.12	0.00	0.00	0.00	0.00



Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Company:	Mach Natural Resources	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Project:	San Juan County, NM NAD83	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site:	NEBU 604 Pad	North Reference:	Grid
Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,100.00	25.12	181.804	4,734.49	-1,731.97	-54.56	357.88	0.00	0.00	0.00	
5,200.00	25.12	181.804	4,825.03	-1,774.40	-55.89	366.65	0.00	0.00	0.00	
5,300.00	25.12	181.804	4,915.57	-1,816.83	-57.23	375.42	0.00	0.00	0.00	
5,400.00	25.12	181.804	5,006.12	-1,859.25	-58.57	384.18	0.00	0.00	0.00	
5,500.00	25.12	181.804	5,096.66	-1,901.68	-59.90	392.95	0.00	0.00	0.00	
5,600.00	25.12	181.804	5,187.21	-1,944.10	-61.24	401.72	0.00	0.00	0.00	
5,700.00	25.12	181.804	5,277.75	-1,986.53	-62.58	410.48	0.00	0.00	0.00	
5,800.00	25.12	181.804	5,368.29	-2,028.96	-63.91	419.25	0.00	0.00	0.00	
5,900.00	25.12	181.804	5,458.84	-2,071.38	-65.25	428.02	0.00	0.00	0.00	
6,000.00	25.12	181.804	5,549.38	-2,113.81	-66.59	436.78	0.00	0.00	0.00	
6,100.00	25.12	181.804	5,639.93	-2,156.23	-67.92	445.55	0.00	0.00	0.00	
6,200.00	25.12	181.804	5,730.47	-2,198.66	-69.26	454.32	0.00	0.00	0.00	
6,300.00	25.12	181.804	5,821.02	-2,241.09	-70.60	463.08	0.00	0.00	0.00	
6,400.00	25.12	181.804	5,911.56	-2,283.51	-71.93	471.85	0.00	0.00	0.00	
6,500.00	25.12	181.804	6,002.10	-2,325.94	-73.27	480.62	0.00	0.00	0.00	
6,600.00	25.12	181.804	6,092.65	-2,368.37	-74.61	489.38	0.00	0.00	0.00	
6,700.00	25.12	181.804	6,183.19	-2,410.79	-75.94	498.15	0.00	0.00	0.00	
6,800.00	25.12	181.804	6,273.74	-2,453.22	-77.28	506.92	0.00	0.00	0.00	
6,900.00	25.12	181.804	6,364.28	-2,495.64	-78.61	515.68	0.00	0.00	0.00	
7,000.00	25.12	181.804	6,454.82	-2,538.07	-79.95	524.45	0.00	0.00	0.00	
7,078.44	25.12	181.804	6,525.85	-2,571.35	-81.00	531.33	0.00	0.00	0.00	
7,100.00	25.27	186.858	6,545.36	-2,580.49	-81.69	533.62	10.00	0.71	23.44	
7,200.00	28.08	208.368	6,634.92	-2,622.50	-95.46	554.54	10.00	2.81	21.51	
7,300.00	33.54	224.826	6,720.93	-2,662.90	-126.19	591.89	10.00	5.46	16.46	
7,400.00	40.59	236.653	6,800.78	-2,700.47	-172.96	644.53	10.00	7.05	11.83	
7,500.00	48.53	245.345	6,872.04	-2,734.07	-234.34	710.86	10.00	7.94	8.69	
7,600.00	56.98	252.079	6,932.55	-2,762.67	-308.47	788.86	10.00	8.45	6.73	
7,700.00	65.73	257.610	6,980.47	-2,785.41	-393.09	876.16	10.00	8.75	5.53	
7,800.00	74.65	262.417	7,014.34	-2,801.59	-485.64	970.11	10.00	8.92	4.81	
7,900.00	83.67	266.826	7,033.14	-2,810.73	-583.30	1,067.86	10.00	9.02	4.41	
7,971.61	90.15	269.876	7,037.00	-2,812.78	-654.73	1,138.55	10.00	9.05	4.26	
8,000.00	90.15	269.876	7,036.93	-2,812.84	-683.12	1,166.50	0.00	0.00	0.00	
8,100.00	90.15	269.876	7,036.66	-2,813.06	-783.12	1,264.99	0.00	0.00	0.00	
8,200.00	90.15	269.876	7,036.40	-2,813.27	-883.12	1,363.47	0.00	0.00	0.00	
8,300.00	90.15	269.876	7,036.14	-2,813.49	-983.12	1,461.95	0.00	0.00	0.00	
8,400.00	90.15	269.876	7,035.88	-2,813.71	-1,083.12	1,560.44	0.00	0.00	0.00	
8,500.00	90.15	269.876	7,035.62	-2,813.92	-1,183.12	1,658.92	0.00	0.00	0.00	
8,600.00	90.15	269.876	7,035.36	-2,814.14	-1,283.12	1,757.40	0.00	0.00	0.00	
8,700.00	90.15	269.876	7,035.10	-2,814.36	-1,383.12	1,855.88	0.00	0.00	0.00	
8,800.00	90.15	269.876	7,034.83	-2,814.57	-1,483.12	1,954.37	0.00	0.00	0.00	
8,900.00	90.15	269.876	7,034.57	-2,814.79	-1,583.12	2,052.85	0.00	0.00	0.00	
9,000.00	90.15	269.876	7,034.31	-2,815.01	-1,683.12	2,151.33	0.00	0.00	0.00	
9,100.00	90.15	269.876	7,034.05	-2,815.22	-1,783.12	2,249.82	0.00	0.00	0.00	
9,200.00	90.15	269.876	7,033.79	-2,815.44	-1,883.11	2,348.30	0.00	0.00	0.00	
9,300.00	90.15	269.876	7,033.53	-2,815.66	-1,983.11	2,446.78	0.00	0.00	0.00	
9,400.00	90.15	269.876	7,033.27	-2,815.87	-2,083.11	2,545.27	0.00	0.00	0.00	
9,500.00	90.15	269.876	7,033.00	-2,816.09	-2,183.11	2,643.75	0.00	0.00	0.00	
9,600.00	90.15	269.876	7,032.74	-2,816.31	-2,283.11	2,742.23	0.00	0.00	0.00	
9,700.00	90.15	269.876	7,032.48	-2,816.52	-2,383.11	2,840.72	0.00	0.00	0.00	
9,800.00	90.15	269.876	7,032.22	-2,816.74	-2,483.11	2,939.20	0.00	0.00	0.00	
9,900.00	90.15	269.876	7,031.96	-2,816.95	-2,583.11	3,037.68	0.00	0.00	0.00	
10,000.00	90.15	269.876	7,031.70	-2,817.17	-2,683.11	3,136.17	0.00	0.00	0.00	



Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Company:	Mach Natural Resources	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Project:	San Juan County, NM NAD83	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site:	NEBU 604 Pad	North Reference:	Grid
Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,100.00	90.15	269.876	7,031.44	-2,817.39	-2,783.11	3,234.65	0.00	0.00	0.00	
10,200.00	90.15	269.876	7,031.17	-2,817.60	-2,883.11	3,333.13	0.00	0.00	0.00	
10,300.00	90.15	269.876	7,030.91	-2,817.82	-2,983.11	3,431.62	0.00	0.00	0.00	
10,400.00	90.15	269.876	7,030.65	-2,818.04	-3,083.11	3,530.10	0.00	0.00	0.00	
10,500.00	90.15	269.876	7,030.39	-2,818.25	-3,183.11	3,628.58	0.00	0.00	0.00	
10,600.00	90.15	269.876	7,030.13	-2,818.47	-3,283.11	3,727.07	0.00	0.00	0.00	
10,700.00	90.15	269.876	7,029.87	-2,818.69	-3,383.11	3,825.55	0.00	0.00	0.00	
10,800.00	90.15	269.876	7,029.60	-2,818.90	-3,483.11	3,924.03	0.00	0.00	0.00	
10,900.00	90.15	269.876	7,029.34	-2,819.12	-3,583.11	4,022.52	0.00	0.00	0.00	
11,000.00	90.15	269.876	7,029.08	-2,819.34	-3,683.10	4,121.00	0.00	0.00	0.00	
11,100.00	90.15	269.876	7,028.82	-2,819.55	-3,783.10	4,219.48	0.00	0.00	0.00	
11,200.00	90.15	269.876	7,028.56	-2,819.77	-3,883.10	4,317.97	0.00	0.00	0.00	
11,300.00	90.15	269.876	7,028.30	-2,819.99	-3,983.10	4,416.45	0.00	0.00	0.00	
11,400.00	90.15	269.876	7,028.04	-2,820.20	-4,083.10	4,514.93	0.00	0.00	0.00	
11,500.00	90.15	269.876	7,027.77	-2,820.42	-4,183.10	4,613.41	0.00	0.00	0.00	
11,600.00	90.15	269.876	7,027.51	-2,820.64	-4,283.10	4,711.90	0.00	0.00	0.00	
11,700.00	90.15	269.876	7,027.25	-2,820.85	-4,383.10	4,810.38	0.00	0.00	0.00	
11,800.00	90.15	269.876	7,026.99	-2,821.07	-4,483.10	4,908.86	0.00	0.00	0.00	
11,900.00	90.15	269.876	7,026.73	-2,821.28	-4,583.10	5,007.35	0.00	0.00	0.00	
12,000.00	90.15	269.876	7,026.47	-2,821.50	-4,683.10	5,105.83	0.00	0.00	0.00	
12,100.00	90.15	269.876	7,026.21	-2,821.72	-4,783.10	5,204.31	0.00	0.00	0.00	
12,200.00	90.15	269.876	7,025.94	-2,821.93	-4,883.10	5,302.80	0.00	0.00	0.00	
12,300.00	90.15	269.876	7,025.68	-2,822.15	-4,983.10	5,401.28	0.00	0.00	0.00	
12,400.00	90.15	269.876	7,025.42	-2,822.37	-5,083.10	5,499.76	0.00	0.00	0.00	
12,500.00	90.15	269.876	7,025.16	-2,822.58	-5,183.10	5,598.25	0.00	0.00	0.00	
12,600.00	90.15	269.876	7,024.90	-2,822.80	-5,283.10	5,696.73	0.00	0.00	0.00	
12,700.00	90.15	269.876	7,024.64	-2,823.02	-5,383.09	5,795.21	0.00	0.00	0.00	
12,800.00	90.15	269.876	7,024.38	-2,823.23	-5,483.09	5,893.70	0.00	0.00	0.00	
12,900.00	90.15	269.876	7,024.11	-2,823.45	-5,583.09	5,992.18	0.00	0.00	0.00	
13,000.00	90.15	269.876	7,023.85	-2,823.67	-5,683.09	6,090.66	0.00	0.00	0.00	
13,100.00	90.15	269.876	7,023.59	-2,823.88	-5,783.09	6,189.15	0.00	0.00	0.00	
13,200.00	90.15	269.876	7,023.33	-2,824.10	-5,883.09	6,287.63	0.00	0.00	0.00	
13,300.00	90.15	269.876	7,023.07	-2,824.32	-5,983.09	6,386.11	0.00	0.00	0.00	
13,400.00	90.15	269.876	7,022.81	-2,824.53	-6,083.09	6,484.60	0.00	0.00	0.00	
13,500.00	90.15	269.876	7,022.54	-2,824.75	-6,183.09	6,583.08	0.00	0.00	0.00	
13,600.00	90.15	269.876	7,022.28	-2,824.96	-6,283.09	6,681.56	0.00	0.00	0.00	
13,700.00	90.15	269.876	7,022.02	-2,825.18	-6,383.09	6,780.05	0.00	0.00	0.00	
13,800.00	90.15	269.876	7,021.76	-2,825.40	-6,483.09	6,878.53	0.00	0.00	0.00	
13,900.00	90.15	269.876	7,021.50	-2,825.61	-6,583.09	6,977.01	0.00	0.00	0.00	
14,000.00	90.15	269.876	7,021.24	-2,825.83	-6,683.09	7,075.50	0.00	0.00	0.00	
14,100.00	90.15	269.876	7,020.98	-2,826.05	-6,783.09	7,173.98	0.00	0.00	0.00	
14,200.00	90.15	269.876	7,020.71	-2,826.26	-6,883.09	7,272.46	0.00	0.00	0.00	
14,300.00	90.15	269.876	7,020.45	-2,826.48	-6,983.09	7,370.94	0.00	0.00	0.00	
14,400.00	90.15	269.876	7,020.19	-2,826.70	-7,083.08	7,469.43	0.00	0.00	0.00	
14,500.00	90.15	269.876	7,019.93	-2,826.91	-7,183.08	7,567.91	0.00	0.00	0.00	
14,600.00	90.15	269.876	7,019.67	-2,827.13	-7,283.08	7,666.39	0.00	0.00	0.00	
14,700.00	90.15	269.876	7,019.41	-2,827.35	-7,383.08	7,764.88	0.00	0.00	0.00	
14,800.00	90.15	269.876	7,019.15	-2,827.56	-7,483.08	7,863.36	0.00	0.00	0.00	
14,900.00	90.15	269.876	7,018.88	-2,827.78	-7,583.08	7,961.84	0.00	0.00	0.00	
15,000.00	90.15	269.876	7,018.62	-2,828.00	-7,683.08	8,060.33	0.00	0.00	0.00	
15,100.00	90.15	269.876	7,018.36	-2,828.21	-7,783.08	8,158.81	0.00	0.00	0.00	
15,200.00	90.15	269.876	7,018.10	-2,828.43	-7,883.08	8,257.29	0.00	0.00	0.00	



Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Company:	Mach Natural Resources	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Project:	San Juan County, NM NAD83	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site:	NEBU 604 Pad	North Reference:	Grid
Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
15,300.00	90.15	269.876	7,017.84	-2,828.65	-7,983.08	8,355.78	0.00	0.00	0.00	
15,400.00	90.15	269.876	7,017.58	-2,828.86	-8,083.08	8,454.26	0.00	0.00	0.00	
15,500.00	90.15	269.876	7,017.32	-2,829.08	-8,183.08	8,552.74	0.00	0.00	0.00	
15,600.00	90.15	269.876	7,017.05	-2,829.29	-8,283.08	8,651.23	0.00	0.00	0.00	
15,700.00	90.15	269.876	7,016.79	-2,829.51	-8,383.08	8,749.71	0.00	0.00	0.00	
15,800.00	90.15	269.876	7,016.53	-2,829.73	-8,483.08	8,848.19	0.00	0.00	0.00	
15,900.00	90.15	269.876	7,016.27	-2,829.94	-8,583.08	8,946.68	0.00	0.00	0.00	
16,000.00	90.15	269.876	7,016.01	-2,830.16	-8,683.08	9,045.16	0.00	0.00	0.00	
16,100.00	90.15	269.876	7,015.75	-2,830.38	-8,783.08	9,143.64	0.00	0.00	0.00	
16,200.00	90.15	269.876	7,015.49	-2,830.59	-8,883.07	9,242.13	0.00	0.00	0.00	
16,300.00	90.15	269.876	7,015.22	-2,830.81	-8,983.07	9,340.61	0.00	0.00	0.00	
16,400.00	90.15	269.876	7,014.96	-2,831.03	-9,083.07	9,439.09	0.00	0.00	0.00	
16,500.00	90.15	269.876	7,014.70	-2,831.24	-9,183.07	9,537.58	0.00	0.00	0.00	
16,600.00	90.15	269.876	7,014.44	-2,831.46	-9,283.07	9,636.06	0.00	0.00	0.00	
16,700.00	90.15	269.876	7,014.18	-2,831.68	-9,383.07	9,734.54	0.00	0.00	0.00	
16,800.00	90.15	269.876	7,013.92	-2,831.89	-9,483.07	9,833.03	0.00	0.00	0.00	
16,900.00	90.15	269.876	7,013.65	-2,832.11	-9,583.07	9,931.51	0.00	0.00	0.00	
17,000.00	90.15	269.876	7,013.39	-2,832.33	-9,683.07	10,029.99	0.00	0.00	0.00	
17,100.00	90.15	269.876	7,013.13	-2,832.54	-9,783.07	10,128.47	0.00	0.00	0.00	
17,200.00	90.15	269.876	7,012.87	-2,832.76	-9,883.07	10,226.96	0.00	0.00	0.00	
17,300.00	90.15	269.876	7,012.61	-2,832.97	-9,983.07	10,325.44	0.00	0.00	0.00	
17,400.00	90.15	269.876	7,012.35	-2,833.19	-10,083.07	10,423.92	0.00	0.00	0.00	
17,500.00	90.15	269.876	7,012.09	-2,833.41	-10,183.07	10,522.41	0.00	0.00	0.00	
17,600.00	90.15	269.876	7,011.82	-2,833.62	-10,283.07	10,620.89	0.00	0.00	0.00	
17,700.00	90.15	269.876	7,011.56	-2,833.84	-10,383.07	10,719.37	0.00	0.00	0.00	
17,800.00	90.15	269.876	7,011.30	-2,834.06	-10,483.07	10,817.86	0.00	0.00	0.00	
17,900.00	90.15	269.876	7,011.04	-2,834.27	-10,583.06	10,916.34	0.00	0.00	0.00	
18,000.00	90.15	269.876	7,010.78	-2,834.49	-10,683.06	11,014.82	0.00	0.00	0.00	
18,100.00	90.15	269.876	7,010.52	-2,834.71	-10,783.06	11,113.31	0.00	0.00	0.00	
18,200.00	90.15	269.876	7,010.26	-2,834.92	-10,883.06	11,211.79	0.00	0.00	0.00	
18,300.00	90.15	269.876	7,009.99	-2,835.14	-10,983.06	11,310.27	0.00	0.00	0.00	
18,400.00	90.15	269.876	7,009.73	-2,835.36	-11,083.06	11,408.76	0.00	0.00	0.00	
18,500.00	90.15	269.876	7,009.47	-2,835.57	-11,183.06	11,507.24	0.00	0.00	0.00	
18,600.00	90.15	269.876	7,009.21	-2,835.79	-11,283.06	11,605.72	0.00	0.00	0.00	
18,700.00	90.15	269.876	7,008.95	-2,836.01	-11,383.06	11,704.21	0.00	0.00	0.00	
18,800.00	90.15	269.876	7,008.69	-2,836.22	-11,483.06	11,802.69	0.00	0.00	0.00	
18,900.00	90.15	269.876	7,008.43	-2,836.44	-11,583.06	11,901.17	0.00	0.00	0.00	
19,000.00	90.15	269.876	7,008.16	-2,836.66	-11,683.06	11,999.66	0.00	0.00	0.00	
19,100.00	90.15	269.876	7,007.90	-2,836.87	-11,783.06	12,098.14	0.00	0.00	0.00	
19,200.00	90.15	269.876	7,007.64	-2,837.09	-11,883.06	12,196.62	0.00	0.00	0.00	
19,300.00	90.15	269.876	7,007.38	-2,837.30	-11,983.06	12,295.11	0.00	0.00	0.00	
19,400.00	90.15	269.876	7,007.12	-2,837.52	-12,083.06	12,393.59	0.00	0.00	0.00	
19,500.00	90.15	269.876	7,006.86	-2,837.74	-12,183.06	12,492.07	0.00	0.00	0.00	
19,600.00	90.15	269.876	7,006.60	-2,837.95	-12,283.06	12,590.56	0.00	0.00	0.00	
19,700.00	90.15	269.876	7,006.33	-2,838.17	-12,383.05	12,689.04	0.00	0.00	0.00	
19,800.00	90.15	269.876	7,006.07	-2,838.39	-12,483.05	12,787.52	0.00	0.00	0.00	
19,900.00	90.15	269.876	7,005.81	-2,838.60	-12,583.05	12,886.00	0.00	0.00	0.00	
20,000.00	90.15	269.876	7,005.55	-2,838.82	-12,683.05	12,984.49	0.00	0.00	0.00	
20,100.00	90.15	269.876	7,005.29	-2,839.04	-12,783.05	13,082.97	0.00	0.00	0.00	
20,200.00	90.15	269.876	7,005.03	-2,839.25	-12,883.05	13,181.45	0.00	0.00	0.00	
20,300.00	90.15	269.876	7,004.76	-2,839.47	-12,983.05	13,279.94	0.00	0.00	0.00	
20,400.00	90.15	269.876	7,004.50	-2,839.69	-13,083.05	13,378.42	0.00	0.00	0.00	



Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Company:	Mach Natural Resources	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Project:	San Juan County, NM NAD83	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site:	NEBU 604 Pad	North Reference:	Grid
Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
20,500.00	90.15	269.876	7,004.24	-2,839.90	-13,183.05	13,476.90	0.00	0.00	0.00	
20,600.00	90.15	269.876	7,003.98	-2,840.12	-13,283.05	13,575.39	0.00	0.00	0.00	
20,700.00	90.15	269.876	7,003.72	-2,840.34	-13,383.05	13,673.87	0.00	0.00	0.00	
20,800.00	90.15	269.876	7,003.46	-2,840.55	-13,483.05	13,772.35	0.00	0.00	0.00	
20,900.00	90.15	269.876	7,003.20	-2,840.77	-13,583.05	13,870.84	0.00	0.00	0.00	
21,000.00	90.15	269.876	7,002.93	-2,840.98	-13,683.05	13,969.32	0.00	0.00	0.00	
21,100.00	90.15	269.876	7,002.67	-2,841.20	-13,783.05	14,067.80	0.00	0.00	0.00	
21,200.00	90.15	269.876	7,002.41	-2,841.42	-13,883.05	14,166.29	0.00	0.00	0.00	
21,300.00	90.15	269.876	7,002.15	-2,841.63	-13,983.05	14,264.77	0.00	0.00	0.00	
21,400.00	90.15	269.876	7,001.89	-2,841.85	-14,083.04	14,363.25	0.00	0.00	0.00	
21,500.00	90.15	269.876	7,001.63	-2,842.07	-14,183.04	14,461.74	0.00	0.00	0.00	
21,600.00	90.15	269.876	7,001.37	-2,842.28	-14,283.04	14,560.22	0.00	0.00	0.00	
21,700.00	90.15	269.876	7,001.10	-2,842.50	-14,383.04	14,658.70	0.00	0.00	0.00	
21,800.00	90.15	269.876	7,000.84	-2,842.72	-14,483.04	14,757.19	0.00	0.00	0.00	
21,900.00	90.15	269.876	7,000.58	-2,842.93	-14,583.04	14,855.67	0.00	0.00	0.00	
22,000.00	90.15	269.876	7,000.32	-2,843.15	-14,683.04	14,954.15	0.00	0.00	0.00	
22,100.00	90.15	269.876	7,000.06	-2,843.37	-14,783.04	15,052.64	0.00	0.00	0.00	
22,200.00	90.15	269.876	6,999.80	-2,843.58	-14,883.04	15,151.12	0.00	0.00	0.00	
22,300.00	90.15	269.876	6,999.54	-2,843.80	-14,983.04	15,249.60	0.00	0.00	0.00	
22,400.00	90.15	269.876	6,999.27	-2,844.02	-15,083.04	15,348.09	0.00	0.00	0.00	
22,500.00	90.15	269.876	6,999.01	-2,844.23	-15,183.04	15,446.57	0.00	0.00	0.00	
22,600.00	90.15	269.876	6,998.75	-2,844.45	-15,283.04	15,545.05	0.00	0.00	0.00	
22,700.00	90.15	269.876	6,998.49	-2,844.67	-15,383.04	15,643.53	0.00	0.00	0.00	
22,800.00	90.15	269.876	6,998.23	-2,844.88	-15,483.04	15,742.02	0.00	0.00	0.00	
22,900.00	90.15	269.876	6,997.97	-2,845.10	-15,583.04	15,840.50	0.00	0.00	0.00	
23,000.00	90.15	269.876	6,997.71	-2,845.31	-15,683.04	15,938.98	0.00	0.00	0.00	
23,100.00	90.15	269.876	6,997.44	-2,845.53	-15,783.03	16,037.47	0.00	0.00	0.00	
23,200.00	90.15	269.876	6,997.18	-2,845.75	-15,883.03	16,135.95	0.00	0.00	0.00	
23,269.63	90.15	269.876	6,997.00	-2,845.88	-15,952.66	16,204.52	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
NEBU 604 7H BHL - hit/miss target - Shape - Point	0.00	0.000	6,997.00	-2,845.88	-15,952.66	2,144,623.97	2,795,921.93	36.8934150	-107.5842690	
NEBU 604 7H LP - plan hits target center - Point	0.00	0.000	7,037.00	-2,812.78	-654.73	2,144,657.07	2,811,219.83	36.8933847	-107.5319537	



Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well NEBU 604 7H - Slot 7H
Company:	Mach Natural Resources	TVD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Project:	San Juan County, NM NAD83	MD Reference:	GL 6501' & RKB 27.5' @ 6528.50ft (Cyclone 35)
Site:	NEBU 604 Pad	North Reference:	Grid
Well:	NEBU 604 7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
28.50	28.50	Animas		0.00	0.000
2,510.12	2,389.50	Ojo Alamo		0.00	0.000
2,641.54	2,508.50	Kirtland		0.00	0.000
3,186.03	3,001.50	Fruitland		0.00	0.000
3,556.02	3,336.50	Pictured Cliffs		0.00	0.000
3,821.08	3,576.50	Lewis		0.00	0.000
5,496.51	5,093.50	Cliffhouse		0.00	0.000
5,910.67	5,468.50	Menefee		0.00	0.000
6,222.12	5,750.50	Point Lookout		0.00	0.000
6,689.30	6,173.50	Mancos		0.00	0.000

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
400.00	400.00	0.00	0.00	Start Build 2.00	
1,655.87	1,616.03	-270.76	-8.53	Start 5422.57 hold at 1655.87 MD	
7,078.44	6,525.85	-2,571.35	-81.00	Start DLS 10.00 TFO 88.19	
7,971.61	7,037.00	-2,812.78	-654.73	Start 15298.01 hold at 7971.61 MD	
23,269.63	6,997.00	-2,845.90	-15,952.66	TD at 23269.63	

Sante Fe Main Office
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General Information
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Online Phone Directory
<https://www.emnrd.nm.gov/oecd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 564617

CONDITIONS

Operator: SIMCOE LLC 1199 Main Ave., Suite 101 Durango, CO 81301	OGRID: 329736
	Action Number: 564617
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	Administrative order required for non-standard spacing unit prior to production.	3/19/2026
matthew.gomez	If cement does not circulate to surface on any string, a Cement Bond Log (CBL) is required for that string of casing. If strata isolation is not achieved, remediation will be required before further operations may commence.	3/19/2026
matthew.gomez	All conducted logs must be submitted to the OCD.	3/19/2026
matthew.gomez	Cement must be in place for at least eight hours AND achieve a minimum compressive strength of 500 PSI before performing any further operations on the well.	3/19/2026
matthew.gomez	Prior to production of this well a change to the well name/number is required to comply with the OCD well naming convention.	3/19/2026
matthew.gomez	No additives containing PFAS chemicals will be added to the drilling fluids or completion fluids used during drilling, completions, or recompletions operations.	3/19/2026
matthew.gomez	All previous COA's still apply.	3/19/2026