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Laboratories							www.Gre	enAnalytical.	.com
Conoco Phillips-Farmington		P	roject: Forn	nation Compa	rison, API,	PO4			
3401 30th Street	Proj	Reported	i:						
Farmington NM, 87401			04/27/16 10:48						
			Klein #2	7					
		160	4146-02 (W	/ater)		30-0	39-21	603	
Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Alkalinity, Bicarbonate*	200	10.0		mg/L	10	04/19/16	2320 B		KDG
Alkalinity, Carbonate*	<10.0	10.0		mg/L	10	04/19/16	2320 B		KDG
Alkalinity, Hydroxide*	<10.0	10.0		mg/L	10	04/19/16	2320 B		KDG
Alkalinity, Total*	200	10.0		mg/L	10	04/19/16	2320 B		KDG
Chloride	668	1000	51.9	mg/L	1000	04/19/16	EPA300.0		JDA
Conductivity*	1250	10.0		uS/cm	1	04/15/16	2510 B		KDG
pH*	7.85			pH Units	1	04/15/16	EPA150.1	H4	KDG
Resistivity	801			ohm/cm	1	04/18/16	2510 B		KDG
Total Dissolved Solids	840	10.0		mg/L	1	04/22/16	EPA160.1		KDG
Specific Gravity	0.9970			N/A	1	04/18/16	Hydrometer		KDG
Sulfate	<61.5	1000	61.5	mg/L	1000	04/19/16	EPA300.0		JDA
Potentially Dissolved Metals by ICP									
Hardness	14.8	9.23	2.80	mg/L	20	04/20/16	2340 B		JLM
Silica Potentially Dissolved	<10.7	21.4	10.7	mg/L	20	04/20/16	2340 B		JLM
Barium*	2.97	0.200	0.053	mg/L	20	04/20/16	EPA200.7		JLM
Calcium*	3.85	0.400	0.055	mg/L	20	04/20/16	EPA200.7		JLM
Iron*	62.0	1.00	0.070	mg/L	20	04/20/16	EPA200.7		JLM
Lead*	<2.00	2.00	0.492	mg/L	20	04/20/16	EPA200.7		JLM
Magnesium*	<2.00	2.00	0.648	mg/L	20	. 04/20/16	EPA200.7		JLM
Manganese*	1.02	0.100	0.015	mg/L	20	04/20/16	EPA200.7		JLM
Potassium*	<20.0	20.0	6.70	mg/L	20	04/20/16	EPA200.7		JLM
Silicon	<10.0	10.0	4.99	mg/L	20	04/20/16	EPA200.7		JLM
Sodium*	210	20.0	6.11	mg/L	20	04/20/16	EPA200.7		JLM
Strontium*	<2.00	2.00	0.007	mg/L	20	04/20/16	EPA200.7		JLM
Zinc*	<1.00	1.00	0.044	mg/L	20	04/20/16	EPA200.7		JLM

**Cation/Anion Balance** 

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Debbie Zufelt, Reports Manager

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Conoco Phillips-Farmington		Pı	roject: For	mation Com	iparison, AF	PI, PO4					
3401 30th Street	Proj	ect Name / Nu	mber: Are	a 9					Reporte	ed:	
Farmington NM, 87401		Project Mar	nager: Dar	rell Savage					04/27/16 1	10:48	
		Reporting		Spike	Source		%REC		RPD		٦
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	

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Laboratories	Laboratories				
Conoco Phillips-Farmington	Project:	Formation Comparison, API, PO4			
3401 30th Street	Project Name / Number:	Area 9	Reported:		
Farmington NM, 87401	Project Manager:	Darrell Savage	04/27/16 10:48		

## **Notes and Definitions**

H4	pH analysis perfomed more than 48 hours after sampling.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

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	RU	S	H	-	/									
Client: COP Address: 3401 E. 30th St. Farmington, NM	A 87402		Phor E-Ma	ne# ail Ade	(505) dress:	) 320- Idarre	-2634 ell.g.s	avaq	Con	tact:	Darre	II Sava	age	
Analytical Laboratories	75 Sutt urango, C one:970-2 AX: 970-2	tle Street O 81303 247-4220 247-4227		GAI PO <del>i</del> Proi	C _ Wo #	HAI rk O	N O	FC #	UST Leo	гог 54-	DY R	ECC	ORD	
Sample Location: (1)BumperSpring, (2)CompressorDischarge, (3)Flowline, (4)Meter, (5)Oil Tank (6)PigLauncher, (7)PigReceiver, (8)Pipeline, (9)Pit Tank, (10)PostFilter, (11)PreFilter (12)SeparatorInlet, (13)SeparatorOutlet, (14)SeparatorDump, (15)SWDInlet (16)SWDOutlet, (17)TransferPump, (18)ValveCan, (19)WaterTank, (20)Wellhead (21)Other <i>Intermediate Valve</i> (1)Casing, (2)CO2GasTube, (3)Coupon, (4)Water, (5)H2SGasTube, (6)Metals (7)O2GasTube, (8)PipeSection, (9)Residual, (10)Sludge, (11)Solid, (12)Tubing, (13)Other														
Col	lection						Pres	serva	ative		An	alyse	s Re	quired
Well Name (Sample Name)	Date	Time	Collected By: (Init.)	Sample Location	Sample Type	No. of Containers	Filtered: Y / N	Unpreserved	H2SO4	Other:	Iron and Manganese	Phosphate	Full Water API	Formational Comparison
JOHNSTON A# 13M	4-13-16	10:40	₽5	21	4	1	N	Y				X		$\boldsymbol{\kappa}$
"intermediate value sample"						-						-		
$\frac{3}{4} \frac{1}{k/r} \frac{1}{r} \frac{\pi}{22}$	4-13-16	13:50	25	20	4	1	N	v					x	
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Date: Date:			7	ryece	Ned B	y.	PD.	1.0	L	Jate:	(11)	Time	10	(12
MATTAN Drill WI	4/110	1653		P	n	m	LEC SI	D	-	4IE	7/6	116	15	D
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Kane	and	100	SUS	DU	hic	ha	el	U.	le	nti	~L	Pag	je 7 c	if 8

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CIC water sampling form #Full sample" (requires 120 ML water for lab) (100 ML water needed for titrations)													
Well Name	Sampler Initials	Collection date & time	Temp. (F)	Sample PSI	Water color / clarity	РН	Dissolved CO2 (Titration) turns X 4 = PPM	Total Alkilinity (Titration) turns X 10 = PPM	CO2 Partial. pressure	Comments			
Klein # 27	DZ	4-13-16 13:50	67	143	CLR	6.87	420	305	Ð	RLUNGEr			
				9 a.		~							
		Residu	al" water.	sample o	nly: (requ	res 60 N	/L water)	Principal and a second s	and the second				
Well Name	Sampler Initials	Collection date & time	Temp. (F)	Sample PSI	Water color / clarity	PH	CO2 Partial pressure if requested			Comments			
JoHNSton A #13m	DS	4-13-16 10:40	65.2	153	Brm	7.10	NA	Collected FIDM INTEL MEDIATE VALVE					
								1					
	-												
	-	"Sol	lid" samp	le collecte	ed for (sol	vency te	sting)						
Well Name	Sampler Initials	Collection date & time	Type Paraffin/ Scale/Ot her	Norm test Y/N	Acid Soluble Y/N	Other t	ests conducted			Comments			
			-										