3R - 249

GENERAL CORRESPONDENCE

YEAR(S):
1986 - 1985

EPNG San Juan Station Visit
5/20/86

Plant tours with
Jami Bailey CC&
Dale Boyer CC&
Roger Anderson CC&
Ken Baasley - EPNG San Juan Div
John Bridges - EPNG - Env. Affairs
Henry Van - EPNG - Env. Affairs
Don Beyhan - S.J. ~~Plant~~ Cost Supvy.
AL Wasserman - SJ Surveyor
Greg Kardos - SJ Env.

5/21/86
Water Levels - Flora Vista

MW3	5.800	FT	0800
S1	4.760	FT	0802
XS1	4.190	FT	0803
M1	5.635	FT	0806
M2	6.040	FT	0808
S5	5.740	FT	0811 *
M5	4.135	FT	0814
M4	3.135	FT	0817

* Dead Squirrel

Start Pump 0829
Reading: 3855200
Start Rate 141 gpm
Hose 125' away from well
Trace Oil (Sheen) at 0840

XS1	5.55	FT	0852
XS1	6.5	FT	0916
XS1	7.47	FT	1027

0920 - Dropped rate to 117 gpm to show drawdown.

0930 - Odor & Heavy sheen

0935 Sample* - VOA
less odor & sheen at sample time

0946 - 120 gpm
1007 - 120 gpm
1054 - 118.8 gpm
1100 - 0.5 gal
1104 - Pump off - Rise in water level brought oil up in well
1130 - Reduce To 103 gpm
1215 - 103.2 gpm, Oil mostly gone
1230 - Pump off - object: cycle well
1235 - Pump on
1252 - Pump off - Little sheen
1255 - Pump on

* Sample w/ bailer ~ 2 feet into water

Samples: 0935 ✓ VOA *
1140 VOA +
1145 Phenols +
1340 VOA, PAH, Phenols +
1400 VOA +

1314 - Pump set up to 137 gpm
21 - " " at 87.2 gpm
1326 - Small amount oil, pump at 137.7
1330 - Pump at 89.9 gpm
40 - " " 104 gpm
1349 - " " 136.5 gpm **
52 - " " 90.2
Meter 3892200 at end.
Stop pump @ 1405

** Oil floating in bore, heavy sheen.

+ Sample with quart mason jar

4/30/86 Well S1 - Elevation:

Time	Head	CUT	DTW	TD	Sat. Thickness
0917	6.0	0.594	5.406		
0918	6.0	0.592	5.408	20,86	15.45
4/22 1156	6.0	.555	5.445		
1157	6.0	.560	5.440	→	
1315	13.00	0.64	~~5.360~~	12.360	
1323	13.00	0.569	~~5.431~~	12,431	
1329	13.00	.490	~~5,510~~	12,510	
1334	13.0	.231	~~5,769~~	12,769	
1345	14.0	1.249	12,751	←	
1351	14.0	1.208	12,792		
1356	14.0	1.055	12,945		
1401	14.0	1.035	12,965		
1414	14.0	.939	13,061		
1421	14.0	.909	13.091		
1427	14.0	.865	13,135		
1431	14.0	.809	13,191		
1446	14.0	.747	13.253		
1455	14.0	.700	13,300		
1506	14.0	.552	13.448		
1516	14.0	.482	13,518		
1526	14.0	.502	13.498		
1536	14.0	.481	13,519		
1545	14.0	.458	13.542		
1555	14.0	.402	13,598		
1605	14.0	.372	13.628		

04/30/86 Comments

Well S1 has plate removed
Measuring point for test
"V" notch 0.46 feet above
and opposite red paint mark
on ~~the~~ concrete pad.
B6042 0945 organics only
Sampled after bailing ~20
bails w/ 1" PVC bailer cleaned
w/ liquinox. TD 19.45+1.41

From City of Farmington -
As used 105.0 gpm / 100 gpm
(As adjusted for lake use 100.4 gpm)

Leave Santa Fe ~ 6PM 4/20/86
Milepost beginning 68132
Arrive Santa Fe ~ 6:30 PM 4/25/86
Mileage 68772
Total Miles 640

Time	Well Head	Well Cut	Elevation MSL	TD	b
0854	7.0	0.785	6.215		
0856	7.0	0.787	6.213	8.4'	2.19
4/22 1147	7.0	.750	6.250		
1149	7.0	.745	6.255		
1312	7.5	1.230	6.270		
1321	7.5	1.217	6.283		
1328	7.5	1.207	6.300		
1342	7.5	1.189	6.311		
1352	7.5	1.173	6.327		
1402	7.5	1.164	6.336		
1423	7.5	1.140	6.360		
1436	7.5	1.127	6.373		
1458	7.5	1.114	6.386		
1518	7.5	1.092	6.408		
1538	7.5	1.072	6.428		
1556	7.5	1.056	6.454		
1616	7.5	1.040	6.460		
1646	7.5	1.011	6.489		
1717	7.5	.990	6.510		
1748	7.5	.970	6.530		
1842	7.5	.917	3		
1923	7.5	.892			
2035	7.5	.840			
2146	7.5	.790			
2247	7.5	.755			

Well M1 bailed approximately 10 volumes
Sample 860421035

Time	Well Head	M2 Elevations: Cut	DTW	TD		comment
0659	7.0	0.440	6.560			Well M-2 bailed approx 10 volumes
0901	7.0	0.440	6.560	9.05	2.49	organic sample ~~8604211055~~ 8604211055
4/22/153	7.0	.360	6.640			
1154	7.0	.355	6645			
1313	8.0	1.416	6.584			
1321	8.0	1.406	6.594			
1329	8.0	1.394	6.606			
1343	8.0	1.400	6.600			
1353	8.0	1.420	6.590			
1403	8.0	1.420	6.580			
1423	8.0	1.408	6.592			
1437	8.0	1.410	6.590			
1459	8.0	1.420	6.580			
1520	8.0	1.423	6.577			
1539	8.0	1.422	6.578			
1557	8.0	1.428	6.572			
1616	8.0	1.423	6.577			
1646	8.0	1.428	6.572			
1718	8.0	1.429	6.571			
1749	8.0	1.426	6.574			
1845	8.0	1.416	6.584			
1925	8.0	1.418	6.582			
2037	8.0	1.405	6.595			
2149	8.0	1.402	6.598			
2252	8.0	1.402	6.598			

Well MW3, Elevation

Time	Vol	Cut	DTW	TD	b
08:31	7.0	0.542	6.458	9.5'	3.04
0833	7.0	0.544	6.456		
4/22 1131	7.0	0.530	6.47		
1133	7.0	0.531	6.469		
1301	7.0	0.485	6.515		
1306	7.0	0.285	6.715		
1317	7.0	0.150	6.850		
1324	7.5	0.584	6.916		
1332	7.5	0.470	7.030		
1347	7.5	0.387	7.113		
1358	7.5	0.312	7.188		
1417	7.5	0.195	7.305		
1428	8.0	0.650	7.350		
1447	8.0	0.560	7.440		
1502	8.0	0.492	7.508		
1521	8.0	.410	7.590		
1540	8.0	0.344	7.656		
1558	8.0	.271	7.729		
1617	8.0	.209	7.791		
1649	8.0	.107	7.893		
1719	8.5	.510	7.990		
1751	8.5	.418	8.082		
1828	8.5	.286	8.214		
1930	8.5	.150	8.350		
2039	9.0	.496	8.504		

well MW3 bailed approx 10 Volumes
8604211010 - Organic Sample only.

Time	Well Head	MW - Elevation Cut	MW	TD	L	Comments
4/20 0845	4.5'	0.648	3.852			well bailed approx 100 liters
0846	4.5	0.648	3.852	5.81	1.95	
4/22 1139				4.7		Sample for organics only
1207	4.0	0.175	3.825			860421 1130
1211	4.0	0.180	3.820			
1849				4.75		Tried reaming out sand
1250	4.0	0.170	3.83			
1251	4.0	0.172	3.828			
1253	4.0	0.184	3.816			
1254	4.0	0.178	3.822			
		0.180	3.820			
1303	4.0	0.165	3.835			
1309	4.0	0.125	3.875			
1319	4	0.084	3.916			
1326	4.5	.570	3.930			
1340	4.5	.543	3.957			
1349	4.5	.518	3.982			
1407	4.5	.500	4.000			
1420	4.5	.478	4.022			
1430	4.5	.446	4.054			
1449	4.5	.411	4.089			
1504	4.5	.376	4.124			
1523	4.5	.348	4.152			
1543	4.5	.330	4.170			
1600	4.5	.292	4.208			
1619	4.5	.262	4.238			
1651	4.5	.212	4.288			

Well 111 5, Elevation

Time	Hdd	Cut	DTW	TD	b
0837	5.5'	0.576	4.924		
0838	5.5	0.578	4.922	7.6'	2.68
4/22 1125	6.0	.580	4.920	6.1+1.4 = 7.5	
1302	5.5	.615	4.885		
1306	~~6.5~~ 7.0	~~.615~~			
1307	6.5	1.580	4.920		
1318	6.5	1.560	4.940		
1325	6.5	1.549	4.951		
1333	6.5	1.529	4.971		
1348	6.5	1.512	4.988		
1359	6.5	1.502	4.998		
1418	6.5	1.475	5.025		
1429	6.5	1.461	5.039		
1447	6.5	1.438	5.062		
1503	6.5	1.413	5.087		
1522	6.5	1.394	5.106		
1542	6.5	1.371	5.129		
1559	6.5	1.350	5.150		
1618	6.5	1.328	5.172		
1650	6.5	1.292	5.208		
1720	6.5	1.258	5.242		
1752	6.5	1.222	5.278		
1846	6.5	1.167	5.333		
1932	6.5	1.121	5.379		
2041	6.5	1.054	5.446		

Well M-5 bailed approx 10 Volumes

Sample EGA 11115 for organics

8/4/01	well 5-5	- Elevation		
Time	H.S.	DTW	TD	b
0755	6.46	6.15	23.83	17.38

Comments

well 5-5 Bailed Approx

Sample for organics only.

8604211205

	well	SX 1	Elevation			
	1/8	Cal	DW	TD	b	
D24	6.5	0.467	5.813	Signaled @ 4.813,	4.811	Comments - Measurement From "V" Notch at red paint mark.
0925	6.5	0.684	5.811	24.02	~~19.20~~ 19.21	
1204	6.0	1.190	4.81			
1204	6.0	1.190	4.81			
1300	6.0	1.470	4.600			
1304	6.0	1.020	4.980			
1311	6.5	1.120	5.380			
1317	6.5	0.842	5.658			
1322	6.5	0.624	5.876			
1327	6.5	0.482	6.018			
1336	6.5	0.240	6.260			Rain stop
1341	7.0	0.598	6.402			
1346	7.0	0.504	6.496			
1350	7.0	0.385	6.615			
1354	7.5	0.785	6.715			
1401	7.5	0.688	6.812			
1413	7.5	0.478	7.022			
1420	7.5	0.410	7.090			
1425	7.5	0.353	7.147			
1433	8.0	0.770	7.230			
1443	8.0	0.681	7.319			
1453	8.0	0.610	7.390			
1505	8.0	0.520	7.480			
1514	8.0	0.469	7.531			
1524	8.0	0.416	7.584			

TIME	[illegible]	CUT	DTW	TD	b
1615	14.0	.309	13.691		
1630	14.0	.268	13.732		
1645	14.0	.185	13.815		
1702	14.5	.607	13.893		
1716	14.5	.544	13.956		
1745	14.5	.254	14.246		
1817	15.0	.510	14.490		
1920	15.0	.240	14.760		
1958	15.5	.395	15.105		
2032	16.0	.600	15.400		
~~2136~~	~~16.0~~				
2136	16.5	.380	16.120		
~~2230~~	~~17.0~~	~~.855~~	~~16.145~~	OK?	Cascading
~~2237~~	~~17.0~~	~~1.30~~	~~15.70~~	?	" "
2245	17.0	.62	16.38	"	"
2310	18.0	2.50	15.50	?	Testing
	Wednesday April 23				
0151		Approx 2.25 feet of water above Foot Valve			
	Depth to Top of Valve: 19.67 − 2.25			19.1'	+.57' (WT. Length)
	17.42 feet DTW @ 0157				
0341	16	1.785	14.215		
0446	16.1	1.719	14.282		

10.8 Top of Screen
+1.4

Moved engine closer - more hose in

1817 Oil —

1950 - Discharge at hoseend

2025 - 790 cond (temp corrected)

samples at 2010 *, 2015 (1st)

* bailer submerged

Time			DO	TD	b
2331	7.5	0.736	6.764		
	Wednesday April 23				
0035	7.5	0.696	6.804		
0133	7.5	0.663	6.837		
0226	7.5	.634	6.866		
0347	7.5	.602	6.898		
0449	7.5	.581	6.919		
0659	7.5	.542	6.958		
0859	7.5	.507	6.993		
1059	7.5	.471	7.029		
1255	7.5	.440	7.060		
1450	7.5	.423			
1709	7.5	.393			
2106	7.5	.351			
	Thursday April 24				
0111	7.5	.316			
0501	7.5	.281			
0901	7.5	.259			
1240	7.5	.241			

Time	Flow	Pressure	D.O.	T°	b
2334	7.0	.401	6.600		
~~00~~	~~7.0~~	Wednesday April 23			
0036	7.0	.390	6.610		
0136	7.0	.386	6.614		
0227	7.0	.385 .380	6615		
0352	7.0	.379	6.621		
0452	7.0	.370	6.630		
0702	7.0	.355	6.645		
0902	7.0	.341	6.659		
1100	7.0	.333	6.667		
1257	7.0	.324	6.676		
1451	7.0	.319			
1711	7.0	.311			
2110	7.0	.301	6.699		
	Thursday April 24				
0115	7.0	.289			
0510	7.0	.287			
0903	7.0	.285			
1241	7.0	.275			

2154	9.0	~~45~~.342	8658		
2254	9.0	0.224	8.776		
2338	9.0	0.154	8.846		
		Wednesday April 23			
0042	9.5	0.548	8.952		
0140	9.5	0.477	9.023		
0238	9.5	.403	9.097		
0356	9.5	.379	9.121		
0454	9.5	.352	9.148		
0705	9.5	.295 .295	9.205		
0905	9.5	.289	9.211	9.555	
1103	9.5	.189 .190	9.311		
1300	9.5	.140	9.360		
1453	9.5	.121	9.379		
1713	9.55	.130	9.420		
2115	9.55	.045	9.505	TD	9.57
		Thursday April 24			
0130		Dmj			

		MW4			
Time	MW1	MW4	MW	ID	6
1721	4.5	.166	4.334		
1754	4.5	.126	4.374		
1851	4.6	.128	4.472		
1935	4.6	.069	4.531		
~~2044~~	~~4.65~~	~~.071~~			
2044	4.7	.071	4.629	4.705	
2200	Dry				
2301	Dry.				
	Wednesday April 23				
0050	Dry				
4/23					
0711		Dry.		4.69	

Time	Flow	Pressure Out	Pressure In	TD	6
~~2151~~	~~4.0~~				
2156	6.5	1.004	5.496		
2259	6.5	0.947	5.553		
2350	6.5	0.919	5.581		
~~00~~		Wednesday April 23			
0046	6.5	0.870	5.630		
0149	6.5	0.831	5.669		
0236	6.5	.798	5.702		
0358	6.5	.765	5.735		
0456	6.5	.731	5.769		
0708	6.5	.682 ← .685	5.818		
0907	6.5	.649 .650	5.850		
1106	6.5	.620	5.880		
1302	6.5	.595	5.905		
1453	6.5	.582			
1719	6.5	.556			
2124	6.5	.527			
		Thursday April 24			
0134	6.5	.503			
0514	6.5	.487			
0905	6.5	.461			
1244	6.5	.441			

		SX1			
[illegible]	[illegible]	[illegible]	Δτω	TD	L
1536	8.0	.364	7.636		
1549	8.0	.335	7.665		
1554	8.0	.274	7.726		
1604	8.0	.254	7.746		
1614	8.0	.206	7.794		
1629	8.5	.660	7.840		
1640	8.5	.622	7.878		
1701	8.5	.560	7.940		
1715	8.5	.516	7.984		
1744	8.5	.443	8.057		
1815	8.5	.328	8.172		
1916	9.0	.642	8.358		
2031	9.0	.470	8.530		
2134	9.0	.357	8.643		
2227	9.0	.268	8.732		
2325	9.0	.185	8.815		
~~0031~~	Wednesday	April	23		
0031	9.0	.106	8.894		
0129	~~10.0~~ 10.0	1.043	8.957		
0225	10.0	.981	9.019		
0345	10.0	1.108	8.892		
0444	10.0	1.135	8.865		
0545	10.0	1.121	8.879		
0655	10.0	1.072	8.928		
0854	10.0	1.094 ✓ 1.010 ←	8.990		

51

TIME			DTW
0659	16.0	1.659	14.341
0830	16.0	1.618	14.382
0857	16.0	1.603 1.602	14.398
1056	16.0	1.510 1.505	14.495
1254	16.0	1.437	14.563
1446	16.0	1.821 1.321	15,179
1704	16.0	1.264	14.736
1905	16.0	1.082	14,918
2009	16.0	1,000	15,000
2101	16.0	0,920	15.080
1 th	Thursday April 27		
~~0121~~	~~16.0~~	~~0.439~~	~~15.561~~
0126	16.0	0.395	15.605
0128	16.0	0.395	15.605
0226	17.0	1.225	15.775
0243	17.0	1.140	15.860
0345	17.0	1.818 1.899	15.102
0502	17.0	1.449 1.448	15,552
0900	17.0	1.468 1.472	15,530
1245	17.0	1.731	15,269
1329	17.0	1.802	15,198
1334	End test		

b

Engine sputtered & turned off several times. Checked rate = 845
Skinny marble sized grease on tape. Sampled
8604230832
EPNG sampled @ 0917
Orifice changed - see other book

Pump stopped ~~2349~~ 2355 See other book
& 054 0143 - 0144
0250 - 0251

Stopped pump 0310 to add gas, oil. Started ~0314

Stopped @ 0727 - 0734
@ 0930 - 0932

Cascading
Orifice 4.65 - 4.7

Time	Temp	DO	DTW
1054	10.0	.941	9.059
1253	10.0	.891	9.109
1445	10.0	.848	
1701	10.0	.861	
2056	10.0	.696	
	Thursday April 24		
0105	10.0	.730	
0306	10.0	.592	
0511	10.0	.648	
0500	10.0	.583	
0856	10.00	.528	
1239	10.0	.520	

1/21		SI Product		
Time	Feet	Cast	OTW	
1334.5	16.0	2.290		
1336	12.0	1.139		
1337	11.0	.970		
1338.5	10.0	.370		
1342.5	10.0	.549		
1342.5	10.0	.671		
1343.5	10.0	.765		
1344.5	10.0	.828		
1345.25	10.0	.862		
1346	10.0	.924		
1347	10.0	.984		
1348	10.0	1.044		
1349	10.0	1.082		
1350.3	10.0	1.151		
1351.5	10.0	1.197		
1352.5	10.0	1.240		
1353.5	10.0	1.274		
1355	9.0	.329		
1356	9.0	.359		
1357	9.0	.385		
1358.5	9.0	.417		
1359	9.0	.448		
1401.5	9.0	.524		
1404	9.0	.595		

1402 organic sample - odor + sheen. Sampled w/ new macropar

Rancho EX1

TIME 9/24	HOLD	CUT	DTW	
1334	10.0	.512		
1335.5	10.0	.512		
1337	10.0	.562		
1337.5	10.0	.622		
1339	10.0	.679		
1341	10.0	.728		
1343	10.0	.782		
1344	10.0	.830		
1345	10.0	.860		
1345.3	10.0	.901		
1346.5	10.0	.942		
1347.5	10.0	.980		
1348.5	10.0	1.009		
1349.5	10.0	1.040		
1351	10.0	1.118		
1352.5	10.0	1.151		
1353	10.0	1.198		
1354	10.0	1.238		
1355.5	9.0	.270		
1356.5	9.0	.289		
1358	9.0	.341		
1359	9.0	.382		
1401	9.0	.454		
1402	9.0	.498		

OR

4/21	Reading	51
Time		
1406	9.0	.641
1408.5	9.0	.710
1411	9.0	.779
1413.5	9.0	.829
1415.5	9.0	.890
1418.5	9.0	.939
1422	9.0	.982
1424.5	9.0	1.019
1427.5	9.0	1.050
1430.5	9.0	1.059
1440.5	8.0	.164
1450.5	8.0	.251 .374←
1510.5	8.0	.352x
1530.5	8.0	.452
1555	8.0	.542
1610	8.0	.591
1631	8.0	.661
1652	8.0	.715
1713	8.0	.772
1730	8.0	.827
1750	8.0	.870
2047	7.0	.212
2136	7.0	.286
2213	7.0	.345
~~4/22~~ 4/23 5		
~~0500~~	~~7.0~~	~~.923~~

9/21			
1406	9.0	.618	
1408	9.0	.677	
1410	9.0	.738	
1413	9.0	.826	
1415	9.0	.870	
1419	9.0	.960	
1421	9.0	1.019	1.019
1421	9.0	1.089	
1427	9.0	1.153	
1430	9.0	1.217	
1440	8.0	.390	
1450	8.0	.532	
1510	8.0	.768	
1530	8.0	.920	
1557	7.0	.082	
1612	7.0	.142	
1630	7.0	.210	
1653	7.0	.290	
1710	7.0	.342	
1733	7.0	.397	
1753	7.0	.438	
2054	7.0	.775	
~~2136~~	~~7.0~~		
2147	7.7	.849	6.156
2215	7.0	.901	6.099

S1 - M3	43.8 ft.
S1 - XS1	29.6 ft.
S1 - M1	131.1 '
S1 - M5	118.5 '
S1 - M4	87.5 '

Wells M3 & M4 still dry at 1750.
Personal note - Lots of wildlife heard until pump off. 3 whitetail deer seen about 3 PM, 4 more mule deer seen at 5:30 PM where discharge hose was. Evidence of fresh beaver cutting of saplings. Herons flying overhead all the time. Skunks not seen but they made their presence known anyway. A fox (or large house cat with bushy tail) seen Thursday Morning at Nico Location to the field work!

Rotary XS1

2240	7.0	0.940	6.060
2317	7.0	0.990	6.010
Fri 4/25			
0825	7.0	1.564	5.436
0923	6.0	0.605	5.395
0951	6.0	0.631	5.369
1032	6.0	.662	5.338

Recovery 51

0831	7.0	0360	
2315	7.0	.438	
7/26 4:35			
0824	7.0	.283	6.017
0918	7.0	1,030	
0920	7.0	1.030	
0949	7.0	1.048	
1034	7.0	1.084	

Recovery - Rainier 10-12

m1

0826	7.5	.891

m2

0828	7.0	.387

m3

0831	9.0	1.939

~~m4~~ m5 2BB

0833	4.5 6.5	1.406

~~m5~~ MW4 2BB

0835	4.5	.335

3 mx3 Delivered to Lab 4/28/86

PHENOLS
- 860423130 S1
- 860423130 S1
- 860424 1310 S1

G.W.C
- 860421055 Hammond DTCH
- 860423130 S1

O+G
- 860423130 S1

HEAVY Metals
- 860421055 Hammond ditch
- 860423130 S1

ORGANICS
- 860421084 5 - Hammond ditch
- 210900 Hammond ditch upstream
- 210930 " " Local store
- 211010 M W3
- 210945 S1
- 211035 M1
- 211055 M2
- 211055 Hammond ditch
- 211115 M5
- 211130 M4
- 211205 S5
- 212010 S1

860422 1525 S1 Discharge
- 221950 S1 Discharge
- 222015 S1
- 230832 S1
- 231310 S1
- 231355 Tank drain - Marquette
- 241310 S1
- 241320 S1 discharge
- 241400 S1
- 250930 M1 Recovery
- 250945 M2 "
- 250955 S5 "
- 251005 composite upstream
- 251007 M3 recovery
- 251015 M4 "
- 251025 M5 "
- 251038 XS1 "
- 251050 S1

Trip to KLB to deliver Follow-up samples -
Leave 1:30 PM 5/7/86
Return SF 5:30 PM 5/7/86
Mileage leaving SF: 69264
" Returning SF: 69384
Total 120 miles

4/22/66

Clock Time	Counts	disc	Stopwatch Time
1300	3580628 ~~3580628~~	28	
13003	3580700	30	
0131	~~3580~~ 3580702	00	00
		60	100
~~1305~~	~~3581~~		
130742	358153	70	
130830	358154	53	
130930	35815	70	
	35817	00	100
	18	00	5845
131550	823	60	
—	824	00	0057
	25	00	0057
130056	28	00	~~0057~~00
	29	00	005700
	32	00	0000
	33	00	5698
132600	35836	71	
	34	00	0001
	38	60	0344 03
133702	845	15	

4/22 -
Aquifer Test - Flora Vista
Well 51

Noon - Install pump well 55
To test. Flow meter jammed
due to wood in impellers.
Clear wood but also
changed flow adjustment -
Need to be recalibrated
in Farmington water meter shop
Throttle set at approx 100 gpm

~1220 - Installed pump next
to well, inserted ~16' x 3"
suction hose down hole
with screen on end. Installed
~225' discharge hose
to tank near tanks. Installed
orifice pipe on end of hose
Pump is Honda "trash pump
WT 30", 3", 320 g.p.m max,
100 FT total head
Engine is Honda G300, 7.0 HP
272 cm3 from P & G
Equipment & Rentals, Farmington

Time	counter	dial	Stopwatch time
	35846	00	000000
	47	00	005711
13410	49	33	
	51	00	000000
	52	00	005727
14100	35887	71	
	89	00	000000
	91	00	015634
	93	00	005620
	893	00	005620
15050	35937	15	
	38	00	000000
	39	30	011554
	40	00	000000
	41	00	005794
	42	00	000000
	43	00	005776
1720-	36076	00	000000
	77	02	005860
	077	40	000000
	078	40	005904
17210?	079	16	
	079	60	000000
	080	60	005934

Thunderclouds, Lightning etc! at 1330

Sample for organics at 1535

Time		counts	dial	Stopwatch Time
		36041	02	000000
1737 -		36082	00	015695
		36095	02	000000
		96	00	005713
	(96)	96	50	000002
1742 -	(97)	97	50	005731
174300		98	57	
		36102	40	000000
		101	40	005720
1938 -		36218	00	000000
		19	00	005829
194200		36219	70	
2430		36331	00	000000
		332	00	005908
2432		36334	48	—
2530		—	00	000
			00	010071
2345		36466	20	0000
2346		36467	00	000000
		68	00	010096
234700		68	90	—
		479	10	000000
2357		480	10	010090
0023	4/23/84	507	00	000000
				010122

Time	counting dial		stopwatch time					
0054	36534	00	000000					
	5	00	010178					
0056	36536	31	—					
0123	563	00	000000					
	564	00	010201					
	36586	00	000000					
0147	87	00	010257					
	38	00	000000					
0242	36651	00	010319					
0247	Dropped rate to avoid air in suction. Water Level lowered to ~2 5" above suction 3-4 + Tabor bottom							
0300	changed rate to approx 85 gpm							
0306	36659	30	000000					
	660	31	011007					
0459	36756	80	011030	85 gpm				
0712	36871	90	011037	85 gpm				
0828	36933	60	011115	84.5				
0910	36978	80	011047	85.1				
1107	37070	40	011078	84.5				
1410	Changed flow tube to 3" pipe w/ 1 3/4" orifice							
1620	Changed speed. Between 1620 & 1640 speed varied between 82-87 gpm							

1455	37260	60	011508	30 gpm

Speed Stabilized at 85 gpm at 1650

Time	counter	dial	Stopwatch Time	Rate	
1650	37357	30	000000		
	37358	50	000 1052	85	
					Pump stops at approximately 2343 - Source unknown (Time calculated to be 2349 from Q)
1657:00	37359	49			
1657 —	59	30	000000		
	360	30	000 1040	85	After finding that automatic low oil level shutoff had tripped, restarted engine at approx 1155 (2355)
1830	37438	50	000000		
	39	50	011076	85	
					(Times are approximate, + or - Ten minutes)
2003	37517	00	000000		
	518	00	011062		
					Approx returning at restart:
4/24/86					
0130	—	—	000000		
	—	—	011062	85	3770900.
					During restart and before finding off switch & needed resetting, engine speed changed. Reset to ~85 rpm after 30 minutes of effort. During this period engine ran between 84-86 rpm.
0150	—	—	000000		
			010950	~85	
0222	37829	40	000000		
	37830	40	011061		
~~0317~~	37896	20	000082	85	
0339	37892	20	011038	85	
					At 0143, engine again shut down automatically, restart within 30 sec - 1 minute

TIME	COUNTER 3	DIAL	TIME	RATE	
0520	37975	20	000000	~84.5	Pump stops at 0727 - reason unknown -
	37976	20	011160		
0525	37980	10	000000 011053	~85	Restarted at 0734
0705	38065	40	000000		Pump stopped @ 0930 -
	38066	40	011059	~85	restarted @ 0932
0733	38094	80	000000		
	38095	80	011007	~85	
0906	38165	50	000000		
	38166	50	011279		
0916	38173	80	000000		
	38174	80	011163		
0918	38179	20	000000		
	38174	20	011023		
0933	38187	10	000000		
	38185	10	011068	~85.7	
1248	38346	00	000000 011324	~82	

TIME	COUNTER	DIAL	TIME	RATE
1328	38379	20	011341	~82.2
1334	38384	21		

SHUT DOWN
FINISHED
COMPLETE
PUMP KAPUT

2 56789 10 11 12

2/13/06 FLORA VISTA

WATER LEVELS OVERCAST SNOWY, COLD 35°

55 1.4
22.4
23.8 WELL DEPTH

8.00 8.000 Hold
1.29 cut 1.295 cut
6.71 6.705

MW2 7.6 + 1.4 = 9.0 WELL DEPTH

~~6.00~~ 7.00 7.40 7.400
0.08 0.465 0.465
6.92 6.935 6.935

MW1 WELL DEPTH = 7.2+1.4 = 8.6'

~~6~~ 7.000 7.00
0.360 0.36
6.640 6.64

MW3 WELL DEPTH = 8.1+1.4 = 9.5

7.500 7.500
0.550 0.545
6.950 6.955

MW5 WELL DEPTH = 6.2+1.4 = 7.6

6.00 6.00
0.51 0.515
5.49 5.485

MW4 WELL DEPTH = 4.42+1.4 = 5.82

~~4.40~~ 4.40 4.40
0.02 0.02
4.38 4.38

MW #3 1321

Total Depth 9,335 FT

8,100	8,000	8,000
1.215	1.114	1.112
6.885	6.886 FT	6.888 FT

MW #5 1334
TD 7.35 FT

Hold	6.000	6.000
Cut	1.550	1.548
	4.450	4.452

MW #4 1342
Day @ 3.84 FT
After Augering 6.4 FT Depth

Hold	6,000	6,000
Cut	1.646	1.644
D/TD	4.354 FT	4.356

Water level @ 1632

Flora Vista

860117165C - MW #~~3~~ #4 - ORGANICS only
20 bails ✓

860117171S - MW #5
ORGANICS only
15 Bails ✓

860117173S - MW #3
Organics Only
15 Bails

Bailer cleaned w/ methanol & deionized H2O prior to each use.

860117180S - MW #1
Organics only 15 Bails

860117182O - MW #2
Organics only 15 Bails.

860117184O - System Composite
Organics only

860117185S - Slippy Well #5
organics only

860117191S - EPA Dehydrator Barrel, Organics only (55 gallon drum) SP. cond 20 umhos @ 70C

1/17/86
Flora Vista

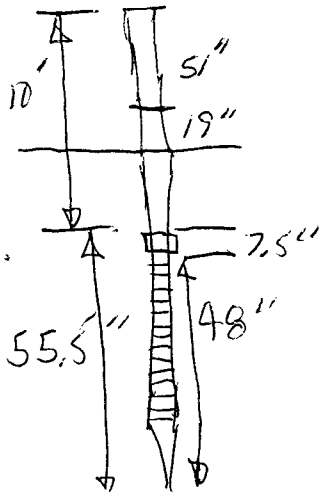
Municipal Well #5
DTW 6.71' @ 1257
Well open - Layer of scum on top of water

MW #2 1302
Bottom @ 8.75'

Hold	8.00	8.00	8.000	8.000
Cut	1.81	1.82	1.081	1.082
DTW	6.19	6.18	6.919	6.918 DTW

MW #1 1311
Bottom @ 8.46'

Hold	8.000	8.000
Cut	1.382	1.385
DTW	6.618	6.615



Monitor Well #1

120"
55.5
175.5"
51.0"
124.5" = 10.375' = 10' 4.5" = TD from MP

TD from LS 8' 9.5"

Depth to top of screen 6' 4.5"
(120" + 7.5" − 51" = 6FT 4.5")

Monitor Well #2

(Depth to Top of screen
122 + 7.5 − 48.25 = 6 FT 9.25"
= 6.77 FT)

122"
55.5
177.5
48.25
129.25" = 10.771' = 10' 9.25" = TD from MP

Monitor Well #3

Depth to top of screen 6' 5" from MP
6.42 FT

123"
55.5"
178.5
53.5
125.0" = 10.42' = 10' 5" TD from MP

Monitor Well #4

Depth to top of screen 3' from MP

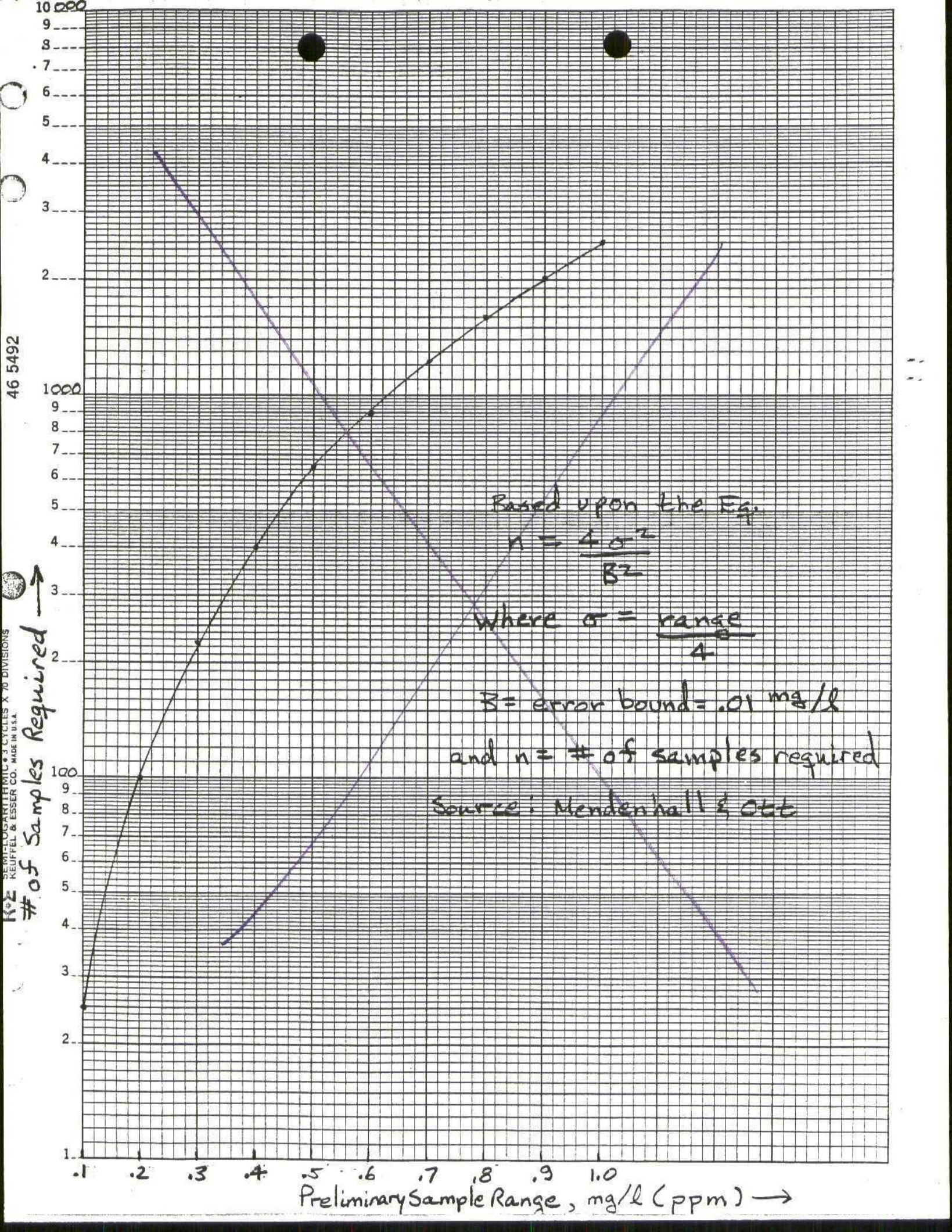
55.5
28.5
84.0" = 7.00 = 7' from MP

Monitor well #5

55"
39"
94" = 7.833 = 7' 10' TD from MP

Depth to top of screen 3' 10"
= 3.83 FT

Screen size 0.07 inches


10 000
9
8
7
6
5
4
3
2
1000
9
8
7
6
5
4
3
2
100
9
8
7
6
5
4
3
2
1
.1
.2
.3
.4
.5
.6
.7
.8
.9
1.0
# of Samples Required →
Preliminary Sample Range, mg/l (ppm) →
Based upon the Eq.
$n = \frac{4\sigma^2}{B^2}$
Where $\sigma = \frac{\text{range}}{4}$
B = error bound = .01 mg/l
and n = # of samples required
Source: Mendenhall & Ott
46 5492
K&E SEMI-LOGARITHMIC • 3 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

10/23/65

For test of Air compressor in Farmington

(1) Clean Trash can & Bailers (Done at Lab Wash in Farmington)

(2) Fill Can - Sample bailers & Blanks (Hole covered & sleeve)

(3) Push Air through & Re sample

(4) Get Sample of Lubricating Oil (Regular Motor oil)

Samples taken at Builders Equip Co.

Sp. Cond @ 0922

9911 mhos @ 12.5 °C

B5 10230845 - Water Sample from barrel pillar with top H2O

B5 10230850 - Teflon bailed Water sample from barrel

B5 10230852 - PVC bailed Sample from barrel

B5 10230915 - aerated water collected from barrel with air compressor running

B5 10230920 - Sample from barrel after aeration, AK OK

Then air down Lean Lean on water,

10/25/85

Flora Vista

Monwell # 1
TD = 8.5'
hw = 2.3'
B5102512 23

Hold 7.00
Cut 0.79
DTW 6.21

Monwell #2
TD = 8.8'
hw = 2.3'
85102512 55

Hold 8.00
Cut 1.48
DTW 6.52

Monwell #3
TD 9.9'
hw = 3.4'
85102512 09

Hold 8.00
Cut 1.48
DTW 6.52

Monwell # 4
TD 3.8'
~Dry~

—

Monwell #5
TD 7.35'
hw = 2.2'
B5102512 50

Hold 6.00
Cut 0.88
DTW 5.12

Water Well #2
TD 23.8
hw = 17.5'

1315
85102512 [illegible]

Hold 7.00
Cut 0.66
DTW 6.34

10/23/85

Casing Vol Calc:

D. Casing = ~~0.1875~~ 0.185'

D. PVC Bailer #1 = 0.085'

length = 3.2 ft

$V_b = \pi r^2 h = (3.1416)\left(\frac{d^2}{4}\right)(3,2)$

$= (3.1416)\left(\frac{0.085^2}{4}\right)(3.2)$

$= 0.0182 ft^3$

or 0.00567 ft^3/linear ft

For MW #3, $V = \pi r^2 h$

$V_w = (19 - 6.5)(3.1416)\left(\frac{0.185^2}{4}\right)$

$= ~~0.0425~~$ 0.0909

or ~~0.269~~ 0.0269 ft^3/linear ft

$\frac{V_w}{V_b} = 4.7 \approx 5$ bails/casing vol

For MW #3, 15 bails.

For others where $h < 3.2$, 15 bails.

Casing Vol Calc (con't)

General Formula $\frac{V_w}{h_w} \times \frac{h_w}{V_b} \times \frac{h_b}{1} = \{\#$ bails for one casing volume$\}$

$\frac{\left(\frac{V_w}{h_w}\right)}{\left(\frac{V_b}{h_b}\right)} \times \frac{h_w}{h_b} = \#$ bails for one casing volume

$\frac{V_w}{h_w} = 0.0269 ft^3$/linear ft for Monitor wells

$\frac{V_b}{h_b}$ (for PVC #1) $= 0.00567 ft^3$/linear ft

$h_b = 3.25$ ft except when $h_w \leq 3.2'$

If $h_w \leq 3.2$, $h_b = h_w$

For Water well #2, ID = 0.86 ft

$V_w = (3.1416)\left(\frac{0.86^2}{4}\right)(17.5 ft) =$

$V_b = 0.0182 ft^3$, $\frac{V_w}{V_b} = \frac{10.2}{0.0182} = 559$ bails!

Surface Composite From
Spreading Media 851025/340

Mary Wheeler #1E
Manana Dil
Elev 5483'
SW/4 SW/4 Sec 23, T30NR12W
From Dick Thurstonson
EPNG dug pit
on 10/24 South
of dehydrator unit
Pit Filled in some
day - Purpose unknown

851025 1355 NF-C/A, N, M, O
" " F-C/A, N, M

---

3 Rivers Trucking
Inside Tap 851023/1105 C/A N M O
Irrigation Ditch 851023/1130 "
Open Pit 851023/1115 C/A, N, M, O

9/19/85 Leave S.F. 11:30AM
(Return SF 9/21/ 7:00PM)

Arrive OC & Dytec 3:45PM

Borrow PU truck for
pick up of air compressor
Purchase trailer hitch
ball for use on truck

9/20 – Pick up compressor,
purchase PVC couplings
and glue to pipe for
use in clearing monitor
wells. Rain begins
about 9:30 AM and
continues heavy most
of the day.

#1 Mon well pushed upwards
by air – hammered back
down to within 0.02 feet
of surveyed position as
determined by proximity
to cut in PVC casing for lock.
#4 Mon well not cleaned due
to distance ~~from~~ from road.

Supply well #2 (10.5" ID)
850921415 (sampled after air drilling)

Mon well #3 — Hold 8.000 — Cut 1.935 — DTW 6.065
850921045
Total Depth > 10.0'
Sample taken after 50 bails
850921110 (organics) (3 casing Vol. = ~20-25 bails)

Mon well #1 — Hold 7.000 — Cut 1.170 — DTW 5.830
850921050
Total Depth 8.7' - Mud in bottom & silt
Sample taken after 50 bails (3 casing vols = 13 bails)
850921140 (organics)

Mon well #2 — Hold 8.000 — Cut 1.860 — DTW 6.140
850921055
(3 casing Vols ≈ 20-25 bails)
Total Depth > 10.0'
Sample taken after 50 bails
850921215 (organics)

Supply well #2 DTW 5.925
(850921000 Measured depth)
expires 850921255 sampled after 20 bails

Mon well #5 — Hold 6.000 — Cut 1.490 — DTW 4.510
850921010
850921335 organics sampled after 50 bails
Total Depth to silt & Mud 7.86'

Mon well #4 — Hold 4.000 — Cut NP 0.532 — DTW 3.468
850921015
Total Depth to silt & Sand 4.08'
850921410 organics, 20 bails (little water)

ID Pipe diameter of Mon Wells:
0.185 FT (Measured)
(2.220 in)
ID Bail diameter 0.085 FT (1.020")
Length = 3.2 FT
$V = \pi r^2 h$
For Pipe: $\frac{V_w}{h} = 0.0269 ft^3/\text{linear ft}$
For bailer: $V_b = 0.018 ft^3$
For this sampling $\frac{V_w}{h} / V_b \times h_w = \#\text{bails for one casing vol} = 1.48 h_w$ bails

DATE: 8-5-85
SAMPLE:
LOCATION: FLORA VISTA M.W.#1
DEPTH TO WATER
DEPTH of WELL
WATER DEPTH
VOLUME BAILED
ODOR
CONDUCTIVITY

COMPLETELY SANDED IN
TO DEPTH 6'2"

M.W.# 2 completely DRY TO
DEPTH 6'5"

Date: 8-5-85
Sample: 8508051645
Location: Flora Vista Pump House

Odor

Conductivity: 275 µmhos @ 18°C

Collected from garden hose

Date: 8-5-85 BAILEY/BARA
Sample # 850805 1450
Location: Flora Vista M.W. #3
Depth to water - 6' 6½"
Depth of well - 7' 2"
Water Depth - 7½"
From Halliburton Book - .17 gal/ft
with 2.375" OD Tubing

Volume Bailed - 0.5 gal
Odor - Slightly metallic & sulfur odor

Collected in PVC Bailer

ALL FLORA VISTA SAMPLES KEPT IN SEPARATE ICE CHEST FROM OTHER SAMPLES COLLECTED THIS TRIP

Date: 8-5-85
Sample # 850805/525
Location: Flora Vista M.W. #5
Depth to Water: 5'6"
Depth of Well: 6'7"
Water Depth: 13"
Halliburton Book: 0.17 gal/ft
Volume Bailed: 0.5 gal

Odor: Swampy Sulfur Smell

Conductivity: 210 μmhos @ 27°C

Collected In PVC Bailer

Date: 8-5-85
Sample # 850805
Location: Flora Vista M.W. #4
Depth to Water:
Depth of Well:
Water Depth
Halliburton Book: 0.17 gal/ft
Volume Bailed

Odor:

Conductivity:

COMPLETELY SANDED IN TO DEPTH 4'

Date: 8-5-85
Sample # 850805 1715
Location: Flora Vista Mun. Well #5
Depth to Water: 6'5"
Depth of Well: 23'6"
Water depth: 17'1"
Pipe I.D.: 10.5"
Volume Bailed: 43 gal

Odor: Swampy

Conductivity: 420 μmhos @ 20°C

Note: This well was shut-down and left uncovered 1 month ago (approx.)

Collected in PVC Bailer

Date: 8-5-85
Sample # 850805 1730
Location: Hydraulic Fluid/R. Penrod's Backhoe

Delivered to Baca/Bailey By R. Penrod in Cranberry Juice Jar

BAILEY COMP. TIME: 2 1/4 HRS.

5/1/85 Farmington Area

David Freeman 325-3970
306 Concho Place
Farmington

Darell Nace 632-9131
Lee Acres CPO Box 7038
Farmington 87401

Donnie Lovato (Lee Acres)
Rt 3 Box 532 No 21
Farmington 87401
* on community water system

Arlene Chacon 632-3379
18 Rd 5470 Lee Acres
Farmington 87401
H_2S smell, black water (from well)

Site	Time	Eh	pH	Cond	Temp
Nace	1040	+160	6.60	905	14.5°C
Lovato	1115	+292	6.72	216	14.7
Chacon	1140	-62	6.66	2970	16.3
Nance	1445	-92	6.45	1695	15.2
Garrison	1540	+140	6.51	750	16.0

← resampled for organics 4:20 pm 6/26/85
- have moved trailer to adjacent lot since previous sampling

← sampled from kitchen tap 4:30 pm 6/26/85
- inside water is from community system

5/1/85 cont.

very muddy water

Linda Nance
PO Box 828 Flora Vista 87415

Tammy Garrison
CR 3302 #111
325-9381

mailing address
Rt 2 Box 232E
Aztec 87410

6/28/85 Flora Vista Monitor Wells
- all wells were developed for 1-2 hours using compressed air on 6/27/85 and allowed to stabalize overnight

8:12 AM

WELL 5 - ~ 3½ feet of water in well initially.
8:40 AM - bailed for 5 minutes before sampling (+5 min recovery)
WELL 4 - initial water level ~ 3 ft below casing
8:40 AM - bailed ~ 5 min before sampling, +5 min recov
WELL 3 - initial water level 5' below casing
- bailed 5 min; 5 min recovery before sampl
9:30 AM water has "oily" brown color & feel but no sheen

6/28/85 cont

Well 2 - initial water level 5½ below casing
1010 am - bailed for 5 min.; recovered 5 min
Well 1 - initial water level 5 ft below casing
- bailed 5 min., recovered 5 min
- sampled at 10 35 AM
Flora Vista Municipal Well #1
- water level = 4.12 ft
bailed ~ 20 min sampled at 11 50

Screen Size 0.07 in

5/1/85 cont.

very muddy water

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6/28/85 Flora Vista Monitor Wells

- all wells were developed for 1-2 hours using compressed air on 6/27/85 and allowed to stabalize overnight

8:12 AM

WELL 5 - ~ 3½ feet of water in well initially.

8:40 AM - bailed for 5 minutes before sampling (+5 min. recovery)

WELL 4 - initial water level ~ 3 ft below casing

8:40 AM - bailed ~ 5 min before sampling, +5 min. recovery

WELL 3 - initial water level 5' ½ below casing

- bailed 5 min; 5 min recovery before sample

9:30 AM water has "oily" brown color & feel

Pit no sheen

6/28/85 cont

Well 2 - initial water level 5½ below casing

1010 AM - bailed for 5 min.; recovered 5 min

Well 1 - initial water level 5 ft below casing

- bailed 5 min., recovered 5 min

- sampled at 1035 AM

Flora Vista Municipal Well #1

- water level = 4.12 ft

bailed ~ 20 min. sampled at 1150

Screen Slot 0.07 in

Earlier concern over contamination from source to alluvium alleviated since have none present

Sample from Hammond Ditch opposite Flare
8506261514 ~~FORMAM~~
for pH, Sp. Cond.
Sp cond 1100 µmhos at 14°C
pH unsteady 8.3 ↓ 8.0

8506261530 for organics.
CA HM

850626
Flare Sep 1545
23°C Sp Cond 2260 µmhos

8506261750 Sullivan Arroyo, S. side, Sample lob #3
8506261740 " " " " " #2
8506261728 " " N. side " " #1

8506281130 FLORA VISTA
MUNICIPAL WELL #1 AFTER BAILING
IRON CASING 10" ID DEPTH TO WATER 12'
OPEN WELL (Sample for ORganics
& Natural gas)

8506281035	FLORA VISTA MONITOR WELL	1
8506281010	" " " "	2
8506280930	" " " "	3
8506280840	" " " "	4
8506280810	" " " "	5

Bloomfield Refinery - 6/26/85
Walked shallow arroyo N side Sullivan Road, W of Hammond ditch
Dug 4 holes w/shovel - One had water and hydrocarbon fluids. Crossed to S. side Sullivan Rd - Dug hole near N.G. Pipeline crossing & by Hwy 44 culvert - Both holes had water and hydrocarbons - Sampled all 3 holes

Casey Elliott Domestic well
711 Melba Lane Farmington
326-4757 87401
8506271805 CAHNMO
Sp cond 890 µmhos @ 17.5°C
pH 7.1
Well 12-15' deep, dug by backhoe 7 yrs ago. Casing is culvert pipe. Strong septic odor.

6-28-85
Flora Vista MW 5 ~3½' in water
4 ~5' below cog
3 ~5' below cog
2 ~5½' " "
1 ~5' " cog
Mmc 1 4.12'

Table I
Table II
Table III
Table IV
Table V
Table VI
Table VII—MINUTES IN DECIMALS OF A DEGREE
Table VIII—MIDDLE ORDINATES OF RAILS
Table IX—SHORT RADIUS CURVES
Table X—RODS IN FEET, 10THS AND 100THS OF FEET
Table XI—LINKS IN FEET, 10THS AND 100THS OF FEET

T&B Brabham Phone 325-4198

8506281130 FLORA VISTA
MUNICIPAL WELL #1 AFTER BAILING
IRON CASING 10" ID DEPTH TO WATER 4.12'
OPEN WELL (Sample for organics
& Natural gas)

2/28/85

Flora Vista - visit @ UNP

Dick Thurstonson (UNP)

At time of contamination had 2 wells, have now drilled 4 more. Total of 5 available, only 3 or 4 currently testing

Contamination first noticed March-April 1983, sampled Aug. 1983.

Large scale map available?

Depth to water about 4 feet average, total well depth 22-23'

Screened interval?

Talk to Dick Cheney about technical details

Get meters (connections)

Get water use info from Gas 5-6 mg/month

Site SW 1/4, SW 1/4 Sec 23 T30N, R12W

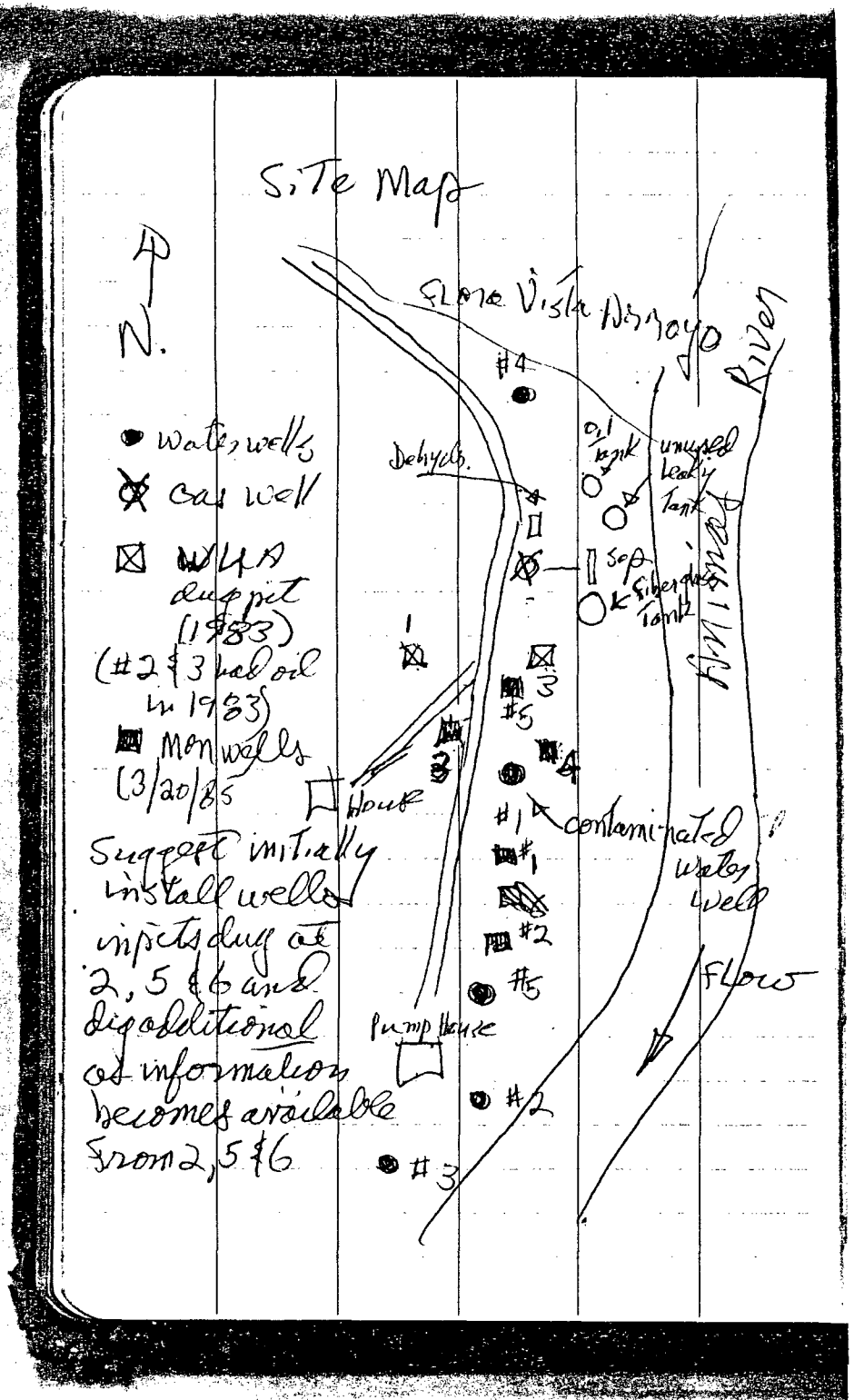
Visit to site:

At oil well, have new production separator, new fiberglass tank on slab, dehydrator, has 55 gal drum 3/4 full (fiberglass tank 2/3 full)

Oil tank has poorly seamed joints, no epoxy lined seam, hole in bottom with pipe through it.

Thurstonson says 2 years ago, EPNG went out, dredged drainage pits and found oil around dehydrator (he knows of no cleanup by them)

Said UNP dug several (at least 3 pits) and found oil in two (see map), contaminated well is directly down the presumed hydraulic gradient from the gas well.


Site Map
N.
Flora Vista Arroyo
San Juan River
#4
Dehydr.
oil tank
unused Leaky tank
sep
fiberglass tank
water wells
gas well
WLM dug pit (1983)
(#2 & 3 had oil in 1983)
Mon wells (3/20/85
Support initially install wells injects dug at 2, 5 & 6 and dig additional as information becomes available from 2, 5 & 6
House
#5
#3
#4
#1
contaminated water well
#2
#5
Pump House
#2
#3
Flow

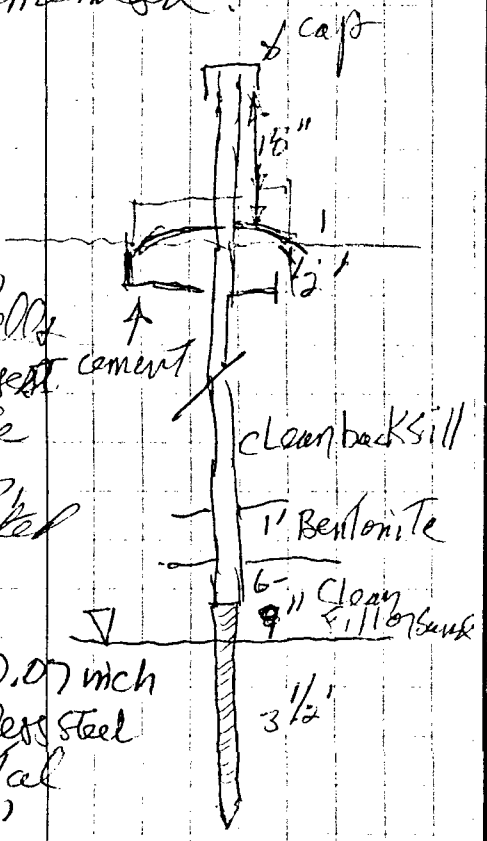
For Glora Vista Trip

Well 6 goes in first
then 2, 5, 3

Others wells as necessary
clean back fill & sand
1½ ft cement

For sampling
Wide Mouth Bottles w caps - (Purchase)
Alum Foil
40ml Vials, culturainers (chain of custody)
Bailers
Wheel barrel (Marie)
Shovel (Marie)
Goggles, etc.

Q. For Cheney - W.T. Fluctuations
surveying Equip
Pump & Falcon tom well
↳ will shoot elevations after cemented.



Samples from
Monitor wells
from next closest
well, sample
from system,
contaminated
well.

Screen Size 0.07 inch
Johnson Stainless Steel
55 inches Total
Screen 48"

3/19/85 Meeting @
Richard P. Cheney
Brewer & Assoc.

Contaminated well was
26' deep, 12' screen
on bottom, SWL ~5'

2 wells at the contaminated
site (one abandoned
~~dec~~ after initial exploration)

Well #1 75gpm drawdown 12'
Well #2 100gpm
Wells #3, 5, 6 ~100gpm
Well #4 25gpm

Actual pumping ~75gpm

99
67

32

3/20/85

On Site BAM, Backhoe
arrived 8:35AM

EPNG Representative
Greg Karbos

Mon Well #1 09/10 HM

0-18 in Soil - Loam/Sand
18-67 in Coarse Sand
& gravel, cobbles &
rock fragments inches in
diameter

9:17 First water, 67 in,
water has oily sheen

0930 - Depth beneath
water about 1.5'
Sample taken for organics
Sample had slight unidentified odor

Screen interval 48"
Total Screen Segment 55.5"
8'3" TD below top of bore
Backfilled with clean sand, gravel & then material removed from well, no bentonite since hole way too large

Pipe section 10' long
Above ground before cut 70" after cut 19".
(51" cut off of 2" pipe)

Mon well # 2 began 10:13
cleaned backhoe

First (?)" Water } oily sheen
(backhoe leaking hydraulic fluid)
at bucket
0 - 2' Soil - Sandy
20 - 83" River Rock

Sample taken at completion of hole, 1030 AM, org. only

No odor odor in water
No odor on dug dirt pile
83" to water
~98" Total depth

122" pipe, 177" Total
cut off 48.25"

Mon Well #3 began 11:45
Cleaned backhoe

20" sand before cobble

First water at 76" - oily sheen
0 - 20" Soil - sandy
20 - 76" River Rock -

123" pipe 178" Total
cut off 53 1/2" from pipe end.
Depth to crud 96"

#3 Not backfilled
(W) clean sand
(S) screen too coarse

Sample at 1205 pm
For Organics, Taken
at composition
hole, depth to water, 96"

No odor on dug dirt piles
No odor in sample

completed backfill
12:30 pm

Org. Sample from contaminated
water supply well
F.V.S. well #1 @ 1310 pm
Sample taken about
4 minutes after begin pump
Discharge rate 2 gls
in 2.87 sec

Mon. Well #4 started 1330

0-10" Topsoil
10"-38" Sand, gravel, cobbles

First Water at 38"
Pit Caving in. Took samples
as pit was caving in. Vials
contained 3 mg Sodium Thio
sulfate (1400 Sample for org.)
Top of pipe 55+2½"

#5
0-39.5 soil, sand & gravel
Black oily layer 39.5-49.5"
Water standing at 54"

Water sample at 2:30, 65" deep
(1430)

Soil sample at ~~1330~~ 1435
Backfilled gravelly due caving.
Pipe cut at 81.0 from
top and sticking out ground.
Length in ground 55+3½"

Complete Sample From
Flora Vista Water
Supply Well #1
Sample from Gas pump out
8503201538 Open well
O&G, C/A, HM, N
Temp 12.5°C
Cond. 600 µmhos.

Sample from
Flora Vista NIR
Water Supply #~~4~~ 5

8503201555
(#5 well is well #1 in Pump and House)
Sample from Spigot
inside pump house
(other wells off-line
Well run 15 min.
alone)

Temp ~~1000~~ 11°C
cond 610 µmhos

Composite Sample ~~#3 & #5 wells~~
#2 & 3 wells,

8503201626
~~Rain~~ 11°C, 670 µmhos
Sample for organics,
C/A, HM, N

Temp 10°C
cond 345 µmhos,
Animas River water
8503201635