APPENDIX B-4

SAMPLES OF DATA INTEGRITY EXAMINATION

DIFFERENCE BETWEEN BARRELS LOST AND BARRELS RECOVERED

LOSS-REC	COUNT	LOSS-REC	COUNT	LOSS-REC	COUNT	LOSS-REC	COUNT	LOSS-REC	COUNT
-1700	1	34	3	91	1	165	3	268	1
-1091	1	35	10	92	2	166	2	269	1
-600	1	36	2	93	2	167	1	270	1
-500	1	37	3	95	3	170	1	272	1
-244	1	38	2	96	1	172	1	274	1
-133	1	39	1	97	2	174	1	276	2
-62	1	40	31	98	1	175	1	278	1
-53	1	41	3	99	3	177	2	280	3
-32	1	43	3	100	38	180	2	281	5
-5	1	44	2	103	2	181	1	284	2
-3	2	45	10	105	2	185	1	285	2
0	246	46	1	106	2	194	1	286	1
1	149	47	2	108	2	1%	2	288	1
2	76	48	1	110	2	197	3	289	1
3	31	49	3	111	1	200	14	294	2
4	36	50	54	112	2	205	2	2%	1
5	97	51	3	115	4	209	1	300	7
6	20	52	2	117	4	210	1	301	1
7	7	53	1	119	3	212	1	304	2
8	8	54	1	120	3	213	1	308	1
9	7	55	6	121	1	214	1	309	2
10	93	56	2	122	1	219	1	312	2
11	4	57	1	124	1	220	2	320	1
12	9	58	3	125	5	224	1	327	1
13	8	59	2	126	2	225	1	328	1
14	4	60	11	128	1	226	1	329	1
15	38	62	1	130	4	227	1	330	1
16	2	64	2	132	1	228	1	332	2
17	2	65	5	133	2	229	1	334	1
18	2	67	4	135	2	231	2	335	1
19	5	69	2	136	2	234	1	341	1
20	54	70	11	140	5	237	1	350	2
21	1	71	1	142	1	238	1	355	2
22	6	75	15	145	3	240	1	356	1
23	4	76	4	148	1	243	2	360	3
24	3	77	1	149	1	245	2	361	1
25	29	79	1	150	13	249	1	365	2
26	5	80	8	151	2	250	3	366	1
27	1	83	2	155	2	252	1	378	1
28	1	85	1	156	1	253	1	380	1
29	4	86	2	157	2	255	1	384	1
30	27	87	4	158	2	256	2	390	2
31	2	88	1	159	1	260	1	392	1
32	3	89	2	160	3	264	1	394	1
33	2	90	7	162	1	265	1	397	1

LOSS-REC	COUNT
399	1
400	9
409	1
410	1
417	1
422	1
423	1
425	1
426	1
430	1
446	1
448	1
450	2
453	1
456	1
460	2
462	1
464	1
465	1
471	1
478	1
479	1
480	1
481	1
482	1
488	1
490	1
492	1
493	1
498	1
500	8
507	1
508	1
512	1
515	1
517	1
518	1
519	1
525	1
545	1
550	3
556	2
559	1
571	1
574	2
577	1
578	1

LOSS-REC	COUNT
583	3
585	1
587	1
588	1
592	1
593	1
596	1
597	1
600	6
602	1
610	1
636	1
640	1
650	4
661	1
668	1
672	1
685	1
690	2
693	1
696	1
699	1
700	4
709	1
720	1
725	1
728	1
730	1
732	2
738	1
750	1
751	1
758	1
765	1
774	1
780	1
791	1
800	2
817	1
819	1
821	1
827	1
830	1
836	1
837	1
850	5
851	2

LOSS-REC	COUNT
878	1
886	1
890	1
900	5
909	1
910	2
917	1
968	1
975	1
985	1
993	1
997	1
1000	5
1023	1
1029	1
1030	1
1034	1
1043	1
1047	1
1050	2
1088	1
1095	1
1100	1
1108	1
1127	1
1130	1
1140	1
1150	1
1160	1
1171	1
1194	1
1200	1
1201	1
1220	1
1245	1
1250	2
1262	1
1278	1
1288	1
1290	1
1297	1
1300	1
1322	1
1332	1
1340	1
1360	1
1365	1

LOSS-REC	COUNT
1374	1
1409	1
1421	1
1446	1
1475	1
1496	1
1500	6
1520	1
1560	1
1575	1
1583	1
1584	1
1621	1
1633	1
1634	1
1665	1
1749	1
1799	1
1800	3
1810	1
1824	1
1834	1
1845	1
1890	1
1900	1
1901	1
1903	1
1906	1
1919	1
1968	1
1977	1
1980	1
2000	6
2014	1
2023	1
2037	1
2050	1
2084	1
2085	1
2088	1
2089	1
2119	1
2150	1
2173	1
2179	1
2201	1
2203	1

LOSS-REC	COUNT
2217	1
2240	1
22%	1
2300	2
2306	1
2326	1
2331	1
2376	1
2400	1
2409	1
2500	2
2505	1
2519	1
2525	1
2553	1
2600	1
2610	1
2620	1
2622	1
2640	1
2643	1
2816	1
2881	1
2888	1
2926	1
2950	1
3000	1
3053	1
3058	1
3099	1
3100	1
3283	1
3304	1
3381	1
3500	2
3548	1
3580	1
3589	1
3600	1
3623	1
3700	1
3763	1
3862	1
4000	3
4500	1
4751	1
4767	1

LOSS-REC	COUNT
4800	1
4836	1
4886	1
4961	1
5000	1
5037	1
5190	1
5200	1
5250	1
5277	1
5351	1

LOSS-REC	COUNT
5374	1
5498	1
5577	1
5692	1
5750	1
5840	1
5918	1
6000	1
6139	1
6235	1
6263	1

LOSS-REC	COUNT
6330	1
6415	1
6713	1
6720	1
6750	1
7000	1
7317	1
7897	1
8000	1
9000	1
9054	1

LOSS-REC	COUNT
9092	2
10000	1
10020	1
10495	1
11145	1
11911	1
12000	1
12500	1
14000	1
15000	1
17294	1

LOSS-REC	COUNT
17685	1
17850	1
19150	1
22300	1
23400	1
55000	1
122000	1
TOTAL	1877

PERCENTAGE OF BARRELS RECOVERED

% OF REC/LOSS	COUNT
0	595
1	6
2	11
3	9
4	4
5	11
6	10
7	7
8	11
9	8
10	7
11	2
12	5
13	6
14	10
15	4
16	7
17	11
18	1
19	1
20	20
21	4

% OF REC/LOSS	COUNT
22	2
23	4
24	4
25	8
26	5
27	4
28	6
29	4
30	6
31	5
32	7
33	14
34	2
35	4
36	8
37	3
38	7
39	6
40	12
41	4
42	5
43	7

% OF REC/LOSS	COUNT
44	4
45	2
46	6
47	4
48	5
49	4
50	32
51	3
52	7
53	6
54	3
55	4
56	6
57	7
58	3
59	6
60	17
61	5
62	5
63	9
64	8
65	4

% OF REC/LOSS	COUNT
66	6
67	19
68	7
69	7
70	7
71	18
72	9
73	5
74	4
75	23
76	7
77	10
78	7
79	6
80	35
81	9
82	7
83	22
84	6
85	13
86	22
87	18

% OF REC/LOSS	COUNT
88	16
89	18
90	29
91	22
92	19
93	25
94	31
95	31
96	34
97	39
98	52
99	51
100	204
206	1
207	1
600	1
987	1
•	8
TOTAL	1877

RATIO BETWEEN WALL THICKNESS AND THE NOMINAL DIAMETER

THK%	
*	2
24	1

THK%	
19	1
15	1

THK%	
13	3
11	4

THK%	
10	1
9	3

THK%	
8	6
7	4

THK%	
6	3
5	73

THK%	
4	276
3	352

THK%	
2	343
1	93

THK%	
0	681
TOTAL	1877

RATIO BETWEEN PRESSURE AT TIME OF ACCIDENT AND MAXIMIM OPERATING PRESSURE

% OF ACPRSI DSPRS	COUNT
*	16
1000	1
857	1
500	1
240	1
182	1
151	1
150	2
144	1
138	1
136	1
135	1
133	1
132	1
129	1
127	2
123	1
116	1
114	2
112	2
110	1
109	1
107	2
106	2
105	2
104	2

% OF ACPRSI DSPRS	COUNT
103	6
101	2
100	28
99	10
98	10
97	10
96	13
95	16
94	14
93	7
92	9
91	8
90	13
89	13
88	10
87	10
86	10
85	9
84	6
83	7
82	11
81	3
80	15
79	4
78	7
77	8

% OF ACPRS/ DSPRS	COUNT
76	12
75	15
74	5
73	6
72	11
71	8
70	8
69	9
68	9
67	16
66	8
65	8
64	7
63	18
62	7
61	7
60	14
59	9
58	9
57	9
56	14
55	9
54	6
53	15
52	13
51	9

% OF ACPRSI DSPRS	COUNT
50	20
49	11
48	14
47	13
46	8
45	12
44	6
43	14
42	18
41	9
40	13
39	8
38	9
37	7
36	9
35	24
34	4
33	12
32	9
31	20
30	16
29	7
28	11
27	9
26	8
25	9

% OF ACPRSI DSPRS	COUNT
24	7
23	15
22	9
21	14
20	9
19	14
18	15
17	20
16	13
15	6
14	18
13	10
12	8
11	13
10	15
9	5
8	11
7	11
6	11
5	7
4	19
3	18
2	6
1	10
0	724
TOTAL	1877

RATIO BETWEEN MAXIMUM OPERATING PRESSURE AND SMYS

% OF MOP/SMYS	COUNT
*	144
4952	1
4696	1
3429	1
3138	1
3137	1
3000	1
2571	1

% OF MOP/SMYS	COUNT
2337	1
2250	1
2115	1
1815	1
1714	1
1333	1
1000	1
655	1

% OF MOP/SMYS	COUNT
500	2
208	1
188	1
150	1
125	1
114	1
106	1
100	9

% OF MOP/SMYS	COUNT
97	1
94	1
91	1
82	1
80	2
77	1
76	1
75	2

% OF MOP/SMYS	COUNT
73	1
72	26
71	9
70	5
69	1
68	3
67	3
66	3

% OF MOP/SMYS	COUNT
65	6
64	2
63	2
62	6
61	7
60	5
59	6
58	1
56	4
54	1
53	3
51	1

% OF MOP/SMYS	COUNT
49	1
48	2
47	2
46	3
45	3
44	1
43	3
42	4
41	3
40	1
39	1
38	2

% OF MOP/SMYS	COUNT
37	1
36	2
35	2
34	1
33	3
32	1
30	1
29	3
28	2
27	1
26	3
25	2

% OF MOP/SMYS	COUNT
24	2
23	1
22	2
21	2
19	1
18	2
17	1
15	2
14	3
12	2
11	1
8	1

% OF MOP/SMYS	COUNT
6	7
5	14
4	108
3	351
2	269
1	94
0	685
TOTAL	1877

DIFFERENCE BETWEEN YEAR OF TESTING AND YEAR PIPE WAS INSTALLED

TST-INSTYY	COUNT
-1994	6
-1993	17
-1992	15
-1991	12
-1990	9
-1989	14
-1988	6
-1987	14
-1986	13
-1985	11
-1984	15
-1983	7
-1982	10
-1981	15
-1980	17
-1979	9
-1978	14
-1977	14
-1976	11
-1975	8
-1974	5
-1973	13
-1972	8
-1971	18
-1970	9
-1969	11
-1968	24
-1967	15
-1966	7
-1965	7
-1964	8

TST-INSTYY	COUNT
-1963	28
-1962	18
-1961	10
-1960	12
-1959	9
-1958	13
-1957	16
-1956	7
-1955	14
-1954	16
-1953	19
-1952	20
-1951	10
-1950	25
-1949	13
-1948	17
-1947	19
-1946	14
-1945	3
-1944	8
-1943	4
-1942	13
-1941	11
-1940	6
-1939	11
-1938	3
-1937	5
-1936	10
-1935	6
-1934	1
-1933	2

TST-INSTYY	COUNT
-1932	2
-1931	19
-1930	22
-1929	12
-1928	7
-1927	11
-1926	1
-1925	4
-1924	3
-1923	5
-1922	1
-1921	3
-1920	8
-1919	13
-1918	2
-1917	1
-61	1
-52	1
-21	2
-10	1
-9	1
-6	1
-4	2
-3	1
-2	2
-1	6
0	448
1	21
2	4
3	1
4	4

TST-INSTW	COUNT
5	3
6	3
7	3
8	11
9	2
10	8
11	5
12	3
13	16
14	4
15	5
16	6
17	4
18	15
19	19
20	30
21	11
22	13
23	6
24	17
25	14
26	13
27	16
28	17
29	11
30	6
31	8
32	11
33	11
34	15
35	7

TST-INSTYY	COUNT
36	9
37	6
38	6
39	10
40	10
41	15
42	14
43	5
44	12
45	6
46	3
47	9
48	5
49	6
50	4
51	1
52	3
53	3
54	7
55	5
56	2
57	7
58	6
59	7
60	8
61	2
62	1
63	2
64	2
65	8
66	1

TST-INSTYY	COUNT
67	7
68	3
69	1
70	1
75	1
80	1

TST-INSTW	COUNT
1942	1
1962	1
1967	2
1968	1
1971	1
1972	2

TST-INSTYY	COUNT
1977	1
1979	1
1981	2
1982	1
1984	2
1985	1

TST-INSTW	COUNT
1986	3
1987	2
1988	1
1989	4
1990	2
1991	1

TST-INSTYY	COUNT
1992	1
TOTAL	1877

RATIO BETWEEN MAXIMUM OPERATING PRESSURE AND MAXIMUM TESTED PRESSURE

% OF DSPRSI MXPRS	COUNT
0	664
6	1
13	1
14	2
15	2
17	1
20	1
22	1
24	2
27	1
30	3
31	1
32	1
33	2
36	1
38	1
39	2
40	2
42	3
43	1

% OF DSPRSI MXPRS	COUNT
45	1
46	1
47	1
48	2
49	1
50	2
51	2
53	2
54	3
55	3
56	4
57	1
58	1
59	3
60	10
61	3
62	4
63	13
64	5
65	6

% OF DSPRSI MXPRS	COUNT
66	13
67	17
68	11
69	11
70	18
71	19
72	36
73	32
74	22
75	25
76	36
77	48
78	36
79	63
80	253
81	9
82	5
83	6
84	3
85	4

% OF DSPRSI MXPRS	COUNT
86	3
87	5
89	5
90	5
91	21
92	3
93	1
94	1
95	1
96	4
98	2
100	8
101	1
103	2
104	1
105	2
107	2
109	1
111	1
116	1

% OF DSPRSI MXPRS	COUNT
118	2
119	1
130	1
140	1
144	3
150	2
154	1
157	1
160	1
165	1
167	1
174	1
200	1
222	1
240	1
•	353
TOTAL	1877

APPENDIX C

RSPA/OPS ACCIDENT REPORT FORMS

DEPARTMENT OF TRANSPORTATION
Office of Pipeline Safety Operations
PIPELINE CARRIER ACCIDENT REPORT

FORM APPROVED
BUDGET-BUREAU NO.
04-R5720

Instructions

Complete In duplicate. If the space provided for any question is not adequate, rttach an additional sheet. Definition of a reportable accident is stated in the Code of Federal Regulations, Title 49, Part 195, Subpart B. File both copies of this report within 15 days after discovery of the accident with the Director, Office of Pipeline Safety Operations, Department of Transportation, Washington, D. C. 20590. Detailed instructions for preparing this fonn are found in Part 195, Subpart B, Section 195.56. Specimen copies of this fonn will be supplied upon request without charge. Additional copies may be reproduced using the same format and size. This report is required by 49 CFR Section 195.54. Failure to report can result in $1,000 fine or imprisonment for 1 year as provided in 18 U.S.C. 832.

A. Information

1. NAME OF CARRIER

2. PRINCIPAL BUSINESS ADDRESS

DOT FORM 7000-1 (LIQUID DATABASE) 1968-1985
SIDE 1

B. Time and Location of Accident

1. DATE (Month, Day, Year) | 2. HOUR ☐ AM ☐ PM | 4. PART OF CARRIER'S SYSTEM INVOLVED ☐ LINE PIPE ☐ PUMPING STATION ☐ DELIVERY POINT ☐ TANK FARM ☐ OTHER (specify) _____

3. LOCATION (State, County, City)

5. PHYSICAL LOCATION (If location is near public or private buildings, or other significant landmarks such as highways or railroads, attach a sketch or drawing showing relationship of accident location to these landmarks)

C. Origin of Fluid or Vapor Release

☐ PIPE ☐ GIRTH WELD ☐ LONGITUDINAL WELD ☐ PUMP ☐ VALVE ☐ SCRAPER TRAP
☐ METER OR PROVER ☐ TANK ☐ WELDED FITTING ☐ BOLTED FITTING
☐ SAMPLE HOUSE ☐ HAY TANK ☐ STRAINER OR FILTER ☐ OTHER (Specify) _____

D. Cause of Accident

☐ CORROSION ☐ DEFECTIVE WELD ☐ INCORRECT OPERATION BY CARRIER PERSONNEL
☐ DEFECTIVE PIPE ☐ EQUIPMENT RUPTURING LINE ☐ OTHER (specify) _____

E. Injury

1. NUMBER OF PERSONS KILLED	2. NUMBER OF PERSONS INJURED

F. Property Damage

1. CARRIER'S DAMAGE (Physical property damaged) $ | 2. ITEMS DAMAGED

3. OTHER PROPERTY DAMAGE $ | 4. ITEMS DAMAGED

G. General Information

1. Commodity being transported at time of accident	2. Estimated loss due to accident (Barrels)	3. Year facility installed (excluding pipe)	4. Was there a fire? ☐ Yes ☐ No	5. Was there an explosion? ☐ Yes ☐ No

Instructions Answer sections H, I or J only if they apply to the particular accident being reported.

H. Occurred in Pipe

1. Nominal Diameter (in.)	2. Wall Thickness (in.)	3. Grade	4. Year of installation ☐ Before 1920 ☐ 1920-30 ☐ 1930-5 ☐ After 1935 (specify yr.) _____	5. Condition When Installed ☐ New ☐ Reconditioned	6. Type of Joint ☐ Weld ☐ Couple ☐ Threaded

7. Configuration at Point of Accident ☐ Straight ☐ Sag ☐ Overbend ☐ Sidebend	8. Pipe Was ☐ Coated ☐ Not Coated	9. Pipe Was ☐ Above ☐ Below Ground

10. Cover, If below ground (in.)	11. Design Pressure (psig)	12. Pressure at time & location of accident (psig)	13. Had there been a pressure test on system? ☐ Yes ☐ No

14. If 13. Is Yes, Medium Used ☐ Water ☐ Petroleum ☐ Air	15. Duration of Test (Hrs.)	16. Maximum Test Pressure (psig)	17. Date of Latest Test

I. Caused by Corrosion	1. Type of Corrosion ☐ Internal ☐ External	2. Facility Coated ☐ Yes ☐ No	3. Facility Under Cathodic Protection? ☐ Yes ☐ No	4. Time Between Corrosion Tests Months	5. Type of Test Used
J. Caused by Equipment Rupturing Pipeline	1. Distance to Closest Line Marker	2. Information on Marker			3. Length of Time Between Patrol on Section Days

ACCOUNT OF ACCIDENT BY RESPONSIBLE OFFICIAL OF CARRIER

DOT FORM 7000-1
(LIQUID DATABASE) 1968-1985
SIDE 2

NAME AND TITLE OF CARRIER OFFICIAL FILING THIS REPORT	TELEPHONE NO. (INCLUDE AREA CODE)	DATE

Report Date

ACCIDENT REPORT-HAZARDOUS LIQUID PIPELINE

No. 7000-1
(DOT)

PART A—OPERATOR INFORMATION

DOT FORM 7000-1
(LIQLCK DATABASE) 1985-PRESENT
SIDE 1

1.) Name of operator _____

2) Principal business address _____

_____
(city) (state) (zip code)

3.) IS pipeline interstate? ☐ yes ☐ no

PART B—TIME AND LOCATION OF ACCIDENT

1) Date: (month) (day) (year)

2.) Hour (24 hour clock)

3.) If onshore give state (including Puerto Rico and Washington. D.C.). and county or city. _____

4) If offshore, give offshore coordinates _____

5) Did accident occur on Federal Land? ☐ yes ☐ no
(See instructions for definition of Federal land)

6) Specific location (If location is near offshore platforms. buildings. or other landmarks. such as highways, waterways. or railroads. attach a sketch or drawing showing relationshp of accident location to these landmarks)

_____

_____

_____

PART C—ORIGIN OF RELEASE OF LIQUID OR VAPOR.

(Check all applicable items)

1) Part of system involved:
☐ line pipe ☐ tank farm ☐ pump station

2.) Item involved:
☐ pipe ☐ valve ☐ scraper trap ☐ pump
☐ welding fitting ☐ girth weld ☐ tank
☐ bolted fitting ☐ longitudial weld

Other (specify) _____

3) Year item installed _____

PART D—CAUSE OF ACCIDENT

☐ corrosion ☐ failed weld ☐ incorrect operation by operator personnel
☐ failed pipe ☐ outside force damage
☐ malfunction of control or relief equipment.
☐ other (specify) _____

PART E—DEATH OR INJURY

1) Number of persons killed. _____
_____ Operator employees _____ Non-employees

2) Number of persons injured. _____
_____ Operator employees _____ Non-employees

PART F—ESTIMATED TOTAL PROPERTY DAMAGE

$ _____

PART G—COMMODITY SPILLED

1.) Name of commodity spilled: _____

2.) Classification of commodity spilled:
☐ Petroleum Petroleum product ☐ HVL or ☐ Non-HVL

3.) Estimated amount of commodity involved
_____ Barrels spilled _____ Barrels recoverd

4) Was there an explosion?
☐ no

5.) Was there a fire?
☐ yes ☐ no

INSTRUCTIONS: Answer sections H, I, or J only if it applies to the particular accident being reported.

PART H—OCCURRED IN ONE PIPE

1) Nominal diameter *(inches)* _____ 2) Wall thickness *(inches)* _____

3.) SMYS *(psi)* _____ 4) Type of joint: ☐ welded ☐ flanged ☐ threaded ☐ coupled ☐ other

5.) Pipe was ☐ Below ground ☐ Above ground

6.) Maximum operating pressure *(psig)* _____

7. Pressure at time and location of accident *(psig)* _____

8) Had there been a pressure test on system?
☐ yes ☐ no

9) Duration of test *(hrs)* _____

10.) Maximum test pressure *(psig)* _____

11.) Date of latest test _____

DOT FORM 7000-1
(LIQLCK DATABASE) 1985-PRESENT
SIDE 2

PART I—CAUSED BY CORROSION

1. Location of corrosion
☐ internal ☐ external

2. Facilty coated?
☐ yes ☐ no

3. Facilty under cathodic protection?
☐ yes ☐ no

4. Type of corrosion
☐ galvanic ☐ other *(Specify)*

_____

PART J-CAUSED BY OUTSIDE FORCE

1. ☐ Damage by operator or its contractor
☐ Damage by others
☐ Damage by natural forces
☐ Landslide
☐ Subsidence
☐ Washout
☐ Frostheave
☐ Earthquake
☐ Ship anchor
☐ Mudslide
☐ Fishing Operations

Other _____

2. Was a damage prevention program in effect'
☐ yes ☐ no

3. If yes, was the program
☐ "one-call" ☐ other _____

4. Did excavator call?
☐ yes ☐ no

5. Was pipeline location temporarily marked for the excavator?
☐ yes ☐ no

PART K—ACCOUNT OF ACCIDENT

NAME AND TITLE OF OPERATOR OFFICIAL FILING THIS REPORT.

_____

_____ _____

Telephone no. *(Including area code)* Date