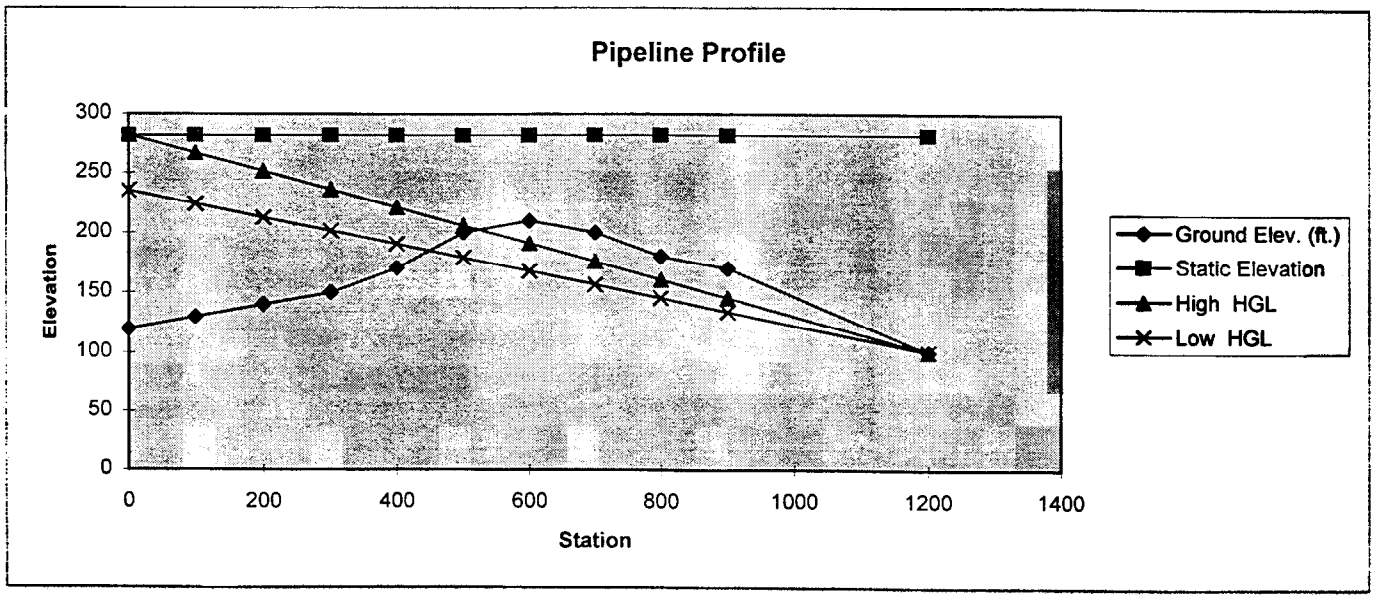
LIVESTOCK PIPELINE Ver. 9.99

Client: Exhibit 3 Pipe Q Tab Example Date: 3/31/00
DSN By: CHK By: _____ Date: _____
Comments:

			Pipe Sec.	Velocity hi (fps)	Velocity lo (fps)
Number of pipe sizes (1-5)	1	Flow			
Pressure Tank elevation (ft.)	120	(gpm)	1	NO FLOW	NO FLOW
High pressure from tank (psi)	70	No Flow		NO FLOW	NO FLOW
Low pressure from tank (psi)	50	No Flow		NO FLOW	NO FLOW
Mannings "n"	0.009			NO FLOW	NO FLOW
Head loss at outlet (ft.)	0			NO FLOW	NO FLOW
Pipe ID (in.)	1.05				

Section Number	Station (ft.)	Ground Elev. (ft.)	Static Elevation	High HGL	Low HGL	Design Pressure for Pipeline (psi)
(press. tank	0	120	281.7	281.7	235.5	100.1
2	100	130	281.7	266.6	224.2	84.5
3	200	140	281.7	251.4	212.9	69.0
4	300	150	281.7	236.3	201.6	57.1
5	400	170	281.7	221.1	190.3	48.4
6	500	200	281.7	206.0	179.0	35.4
7	600	210	281.7	190.9	167.8	31.1
8	700	200	281.7	175.7	156.5	35.4
9	800	180	281.7	160.6	145.2	44.1
10	900	170	281.7	145.4	133.9	48.4
11	1200	100	281.7	100.0	100.0	78.7
12	0					
13	0					
14	0					
15	**0**					

INPUT ERROR

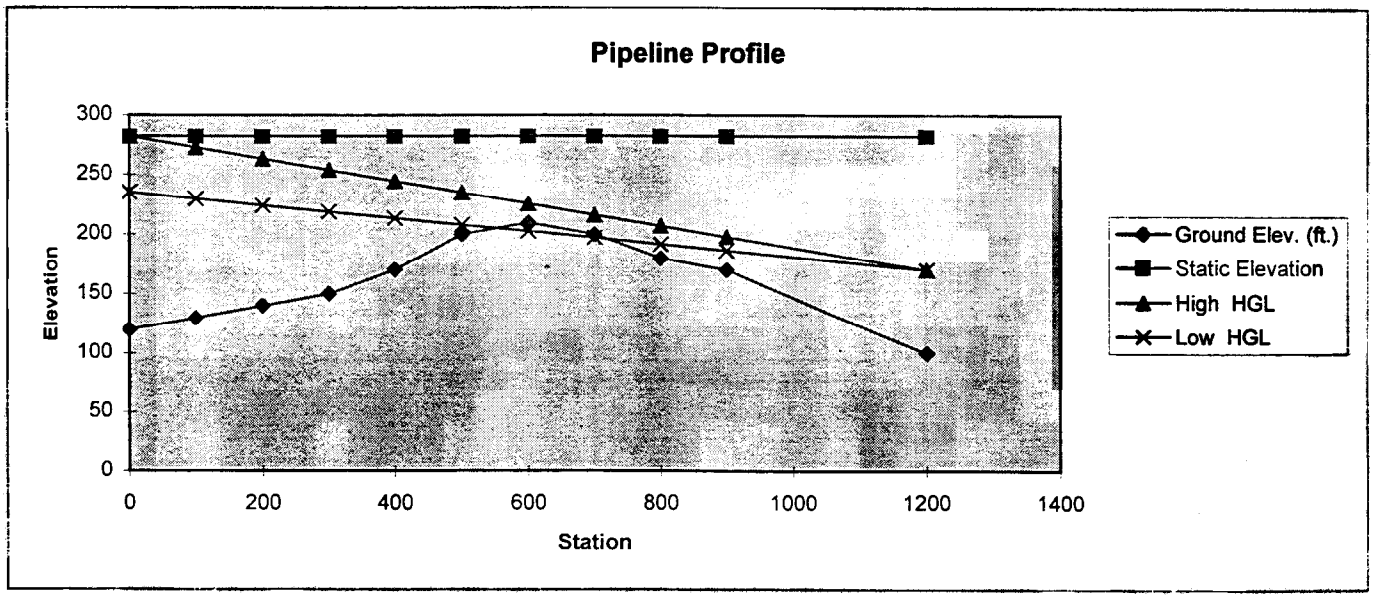


LIVESTOCK PIPELINE Ver. 9.99

Client: Exhibit 4 Pipe Q Tab Example Date: 3/31/00
DSN By: CHK By: _____ Date: _____
Comments:

			Pipe Sec.	Velocity hi (fps)	Velocity lo (fps)
Number of pipe sizes (1-5)	1	Flow			
Pressure Tank elevation (ft.)	120	(gpm)	1	3.9	NO FLOW
High pressure from tank (psi)	70	10.7			NO FLOW
Low pressure from tank (psi)	50	No Flow			NO FLOW
Mannings "n"	0.009				NO FLOW
Head loss at outlet (ft.)	70				NO FLOW
Pipe ID (in.)	1.05				

Section Number	Station (ft.)	Ground Elev. (ft.)	Static Elevation	High HGL	Low HGL	Design Pressure for Pipeline (psi)
(press. tank	0	120	281.7	281.7	235.5	100.1
2	100	130	281.7	272.4	230.0	88.1
3	200	140	281.7	263.1	224.6	76.2
4	300	150	281.7	253.8	219.1	64.2
5	400	170	281.7	244.5	213.7	48.4
6	500	200	281.7	235.2	208.2	35.4
7	600	210	281.7	225.9	202.8	31.1
8	700	200	281.7	216.5	197.3	35.4
9	800	180	281.7	207.2	191.8	44.1
10	900	170	281.7	197.9	186.4	48.4
11	1200	100	281.7	170.0	170.0	78.7
12	0					
13	0					
14	0					
15	0					

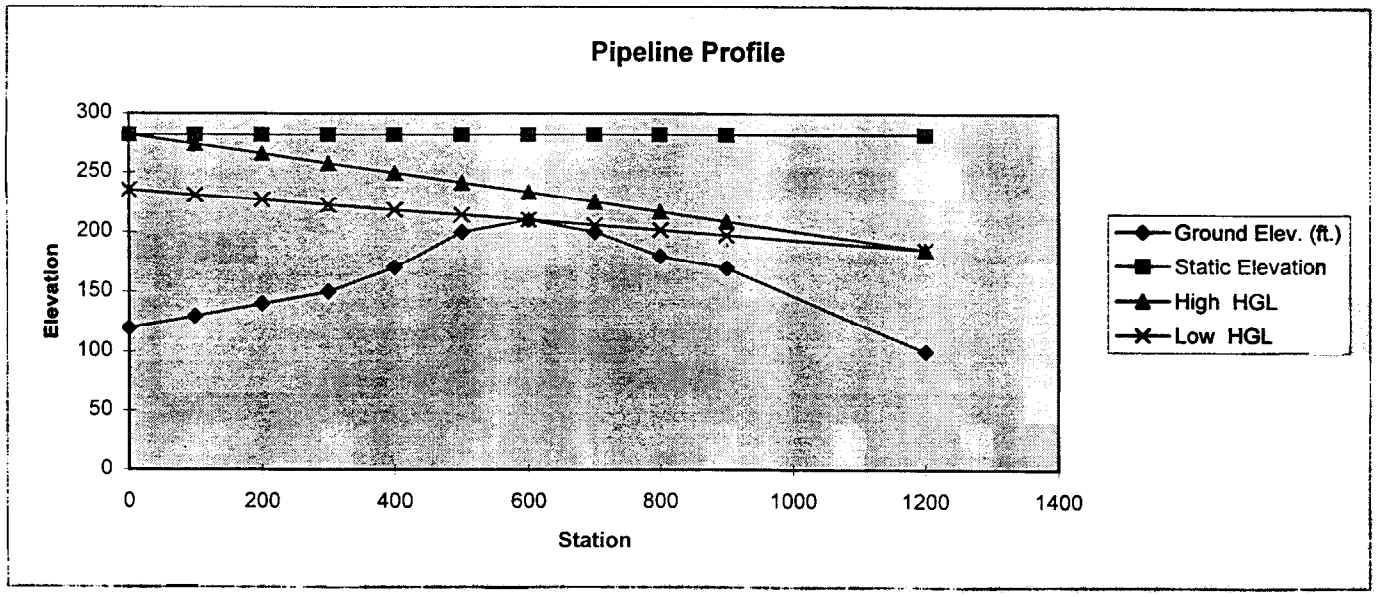


LIVESTOCK PIPELINE Ver. 9.99

Client: Exhibit 5 Pipe Q Example Date: 3/31/00
DSN By: CHK By: _____ Date: _____
Comments:

Number of pipe sizes (1-5)	1	Flow	Pipe Sec.	Velocity hi (fps)	Velocity lo (fps)
Pressure Tank elevation (ft.)	120	(gpm)	1	3.7	2.6
High pressure from tank (psi)	70	9.9			
Low pressure from tank (psi)	50	7.2			
Mannings "n"	0.009				
Head loss at outlet (ft.)	85				
Pipe ID (in.)	1.05				

Section Number	Station (ft.)	Ground Elev. (ft.)	Static Elevation	High HGL	Low HGL	Design Pressure for Pipeline (psi)
(press. tank	0	120	281.7	281.7	235.5	100.1
2	100	130	281.7	273.6	231.3	88.9
3	200	140	281.7	265.6	227.1	77.7
4	300	150	281.7	257.5	222.9	66.6
5	400	170	281.7	249.5	218.7	49.2
6	500	200	281.7	241.4	214.5	35.4
7	600	210	281.7	233.4	210.3	31.1
8	700	200	281.7	225.3	206.0	35.4
9	800	180	281.7	217.2	201.8	44.1
10	900	170	281.7	209.2	197.6	48.4
11	1200	100	281.7	185.0	185.0	78.7
12	0					
13	0					
14	0					
15	**0**					



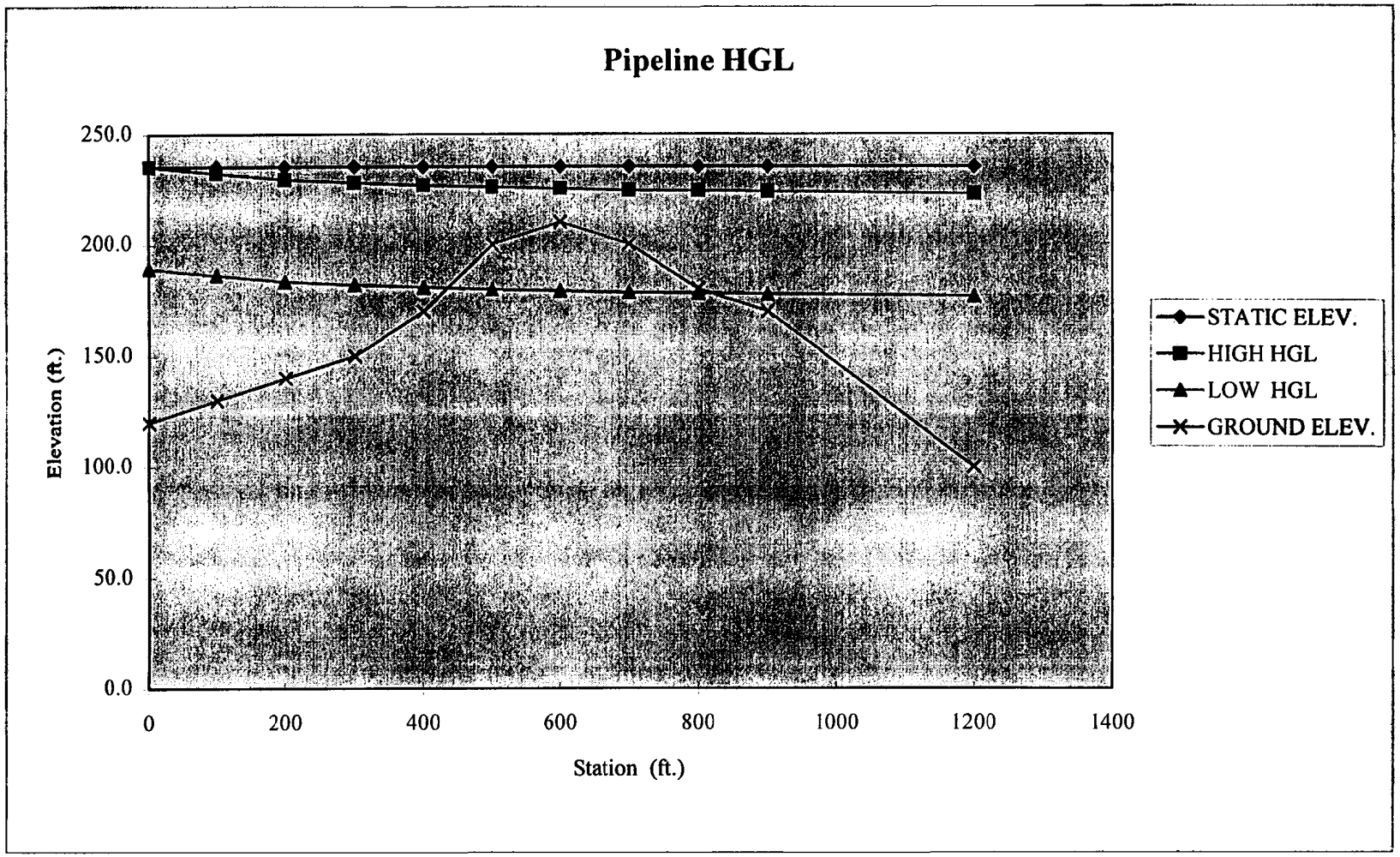
LIVESTOCK PIPELINE Ver. 9.99

Client: Exhibit 6 Design Tab Example Date: 3/31/00
DSN By: CHK By: _____ Date: _____
Comments: This example will require some changes too make it work

Pressure Tank elevation (ft.)	120
High pressure from tank (psi)	50
Low pressure from tank (psi)	30
Mannings "n"	0.009

Section Number (press. tank)	Station (ft.)	Outlet (gpm)	Total (gpm)	Ground Elev. (ft.)	Pipe ID (in.)	Design Pressure for Pipeline (psi)	Velocity (fps)
	0	No outlet	6	120	NA	71.4	
2	100	0	6	130	1.05	63.4	2.2
3	200	2	6	140	1.05	55.4	2.2
4	300	0	4	150	1.05	48.4	1.5
5	400	0	4	170	1.05	35.2	1.5
6	500	1	3	200	1.05	16.2	1.1
7	600	0	3	210	1.05	11.0	1.1
8	700	1	3	200	1.05	15.3	1.1
9	800	0	2	180	1.05	27.4	0.7
10	900	0	2	170	1.05	33.4	0.7
11	1200	2	2	100	1.05	76.1	0.7
12	0						
13	0						
14	0						
15	0						

Section Number	Friction Loss (ft.)	High HGL (ft.)	High Section (psi)	Low HGL (ft.)	Low Section (psi)	High Static (psi)
1	None	235.4	50.0	189.2	30.0	50.0
2	2.95	232.4	44.4	186.3	24.4	45.7
3	2.95	229.5	38.8	183.3	18.8	41.3
4	1.31	228.2	33.9	182.0	13.9	37.0
5	1.31	226.8	24.6	180.7	4.6	28.3
6	0.74	226.1	11.3	180.0	No Flow	15.3
7	0.74	225.4	6.7	179.2	No Flow	11.0
8	0.74	224.6	10.7	178.5	No Flow	15.3
9	0.33	224.3	19.2	178.2	No Flow	24.0
10	0.33	224.0	23.4	177.8	No Flow	28.3
11	0.98	223.0	53.3	176.8	33.3	58.7
12						
13						
14						
15						



Client: Exhibit 7 Design Tab Example Date: 3/31/00
DSN By: