



December 12, 2011 to December 18, 2011

Merrisourt Wind Farm to Ellendale 230KV Project

2 NO:

Structure assembling

243 total structure #13 subtotal 139 structure

Structure assembled this week (16)

$$\begin{array}{r} \#13 \quad \#14 \quad \#14 \\ 139 + 16 = 153 \end{array} \quad 243 \overline{)153} = .6296 = 63\%$$

2 NO:

Structure Erecting 243 total

$$\begin{array}{r} \#13 \quad \#14 \\ 69 + 43 \end{array} \quad 243 \overline{)112} = .4609 = 46\%$$

1 W NO:

wire string 4/0 ACSR Penguin underbuild wire

18 miles total = 95,040 ft. total

$$9,950 \text{ ft } \#13 + 37,259 \text{ ft.} = 47,209 \text{ ft}$$

$$95,040 \overline{)47,209} = .4967 = 50\%$$

38,259

Kenneth W Fisher

Conductor Stringing Project 851 46KV 4/0

12/11/2011 15:07

J:\Project 851\ConductorSetup\Conductor-Setups-851-46kv.xlsx\Sheet1

Pull #	Str-Str	Sta Ahead	Sta Back	Length (ft)	Reels	Wire	Wire	Reel Length (ft)	Wire Left On Reels	Machine Positions	Comments
							Needed per Phase				
Pull #1	Str 241 to 226-225	156087	146577	9,510	1	4/0	9,700	9,700	0		Setup 178' ahead of 225.
				9,510	2	4/0	9,700	9,700	0		
				9,510	3	4/0	9,700	9,700	0		
Pull #2	Str 226-225 to 213-212	146577	138206	8,371	4	4/0	8,538	9,700	1,162		Setup 180' ahead of 212. Slough prevents setup in 212-211. Re-use reels for last pull.
				8,371	5	4/0	8,538	9,700	1,162		
				8,371	6	4/0	8,538	9,700	1,162		
Pull #3	Str 213-212 to 198-197	138206	128696	9,510	7	4/0	9,700	9,700	0		Setup 221' back of 198. Single phase hotline between 201-200.
				9,510	8	4/0	9,700	9,700	0		
				9,510	9	4/0	9,700	9,700	0		
Pull #4	Str 198-197 to 184-183	128696	119562	9,134	10	4/0	9,317	9,700	383		Setup 120' ahead 183. HWY 11 prevents setup in 183-182. Re-use reels for 241-330.
				9,134	11	4/0	9,317	9,700	383		
				9,134	12	4/0	9,317	9,700	383		
Pull #5	Str 184-183 to 169-168	119562	110048	9,514	13	4/0	9,704	9,700	-4		Setup 150' back of 169. Single phase hotline between 175-174. HWY 11 crossing between 183-182.
				9,514	14	4/0	9,704	9,700	-4		
				9,514	15	4/0	9,704	9,700	-4		
Pull #6	Str 169-168 to 154-153	110048	100538	9,510	16	4/0	9,700	9,700	0		Setup 292' back of 154 163 is a five pole. Cross Forbes HWY between 159-158.
				9,510	17	4/0	9,700	9,700	0		
				9,510	18	4/0	9,700	9,700	0		
Pull #7	Str 154-153 to 139-138	100538	91028	9,510	19	4/0	9,700	9,700	0		Setup 241' ahead of 138. Single phase hotline between 150-149.
				9,510	20	4/0	9,700	9,700	0		
				9,510	21	4/0	9,700	9,700	0		
Pull #8	Str 139-138 to 124-123	91028	81570	9,458	22	4/0	9,647	9,700	53		Setup 180' ahead from 123. 133 is angle 3-pole. Single phase hotline between 125-126.
				9,458	23	4/0	9,647	9,700	53		
				9,458	24	4/0	9,647	9,700	53		
Pull #9	Str 124-123 to 114-113	81570	75743	5,827	25	4/0	5,944	9,700	3,756		Setup 300' ahead of 113. Cut pull short to avoid conductor setup on Doug Zahn property
				5,827	26	4/0	5,944	9,700	3,756		
				5,827	27	4/0	5,944	9,700	3,756		
Pull #10	Str 115-114 to 98-97	75743	66222	9,521	28	4/0	9,711	9,700	-11		Setup 150' back of 97.
				9,521	29	4/0	9,711	9,700	-11		
				9,521	30	4/0	9,711	9,700	-11		
Pull #11	Str 98-97 to 95	66222	65338	884	4	4/0	902	1,162	260		Single phase hotline 10' from str 95.
				884	5	4/0	902	1,162	260		
				884	6	4/0	902	1,162	260		

*week of Dec 5<sup>th</sup> 2011 to Dec 8<sup>th</sup> 2011 1.84 miles*

*week of Dec 12<sup>th</sup> to Dec 17<sup>th</sup> 2011 1.62 miles*

*week of Dec 12<sup>th</sup> 2011 to Dec 17<sup>th</sup> 2011 1.84 miles*

*week of Dec 12<sup>th</sup> to Dec 17<sup>th</sup> 2011 1.76 miles*

*week of Dec 12<sup>th</sup> to Dec 17<sup>th</sup> 2011 1.84 miles*

*8,90*

*1.84 miles*

*1.83 miles*

*1.13 miles*

*1.84 miles*

*0.17 miles*

*17.55 miles*

INSPECTOR'S WEEKLY REPORT

Line: Merriman + Wind Farm to Ellendale 230KV Project

Period: Dec 11, 2011 to Dec 17, 2011 Contractor: Bovert Pauline Service

Inspector: Kenneth W. Lisher General Foreman: DEREK BRINK

Weather Conditions: Temp 12° to 30° Workmen Total: 10  
OVERCAST. Fog to clear windy 5 to 30 mph East up to 45 mph

Progress:

- 1. Roads Built \_\_\_\_\_
- 2. Gates Built \_\_\_\_\_
- 3. Material Hauled \_\_\_\_\_
- 4. Structures Framed \_\_\_\_\_
- 5. Digging \_\_\_\_\_
- 6. Structures Set \_\_\_\_\_
- 7. Sock Line Pulled From structure 206 to structure 168
- 8. Wire Strung from same as no. 7
- 9. Wire Sagged & Clipped From structure 226 to structure 169  
(Total miles this week is 7.06 miles)
- 10. Clean-up \_\_\_\_\_

Comments:

The wire operation is going good. This week, the crew finished 7.06 miles of wire, for a total of 8.94 miles to date.  $7.06 + 1.8845 = 8.94$  miles

The crew will close down after work on December 22, 2011. They plan to go back to work on January 4<sup>th</sup> 2012.

# TRANSMISSION LINE CONSTRUCTION

## RECORD OF CONTRACTORS TIME & EQUIPMENT

PROJECT Merrycourt wind farm to Ellendale REPORTED BY Kenneth W. Piche  
*2014 Project*

DATE Monday 19, 2011

*Bovert Powerline Services*

MEN	NO.	TRAILS & LANDINGS	POLE & MATERIAL HAULING	HOLE DIGGING	STRUCTURE FRAMING (Ground)	STRUCTURE SETTING	STRUCTURE FRAMING (Aerial)	ANCHOR INSTALLATION	CONDUCTOR HAUL, STRING, SAG, CLIP	CLEAN-UP WORK	LOST TIME DUE TO ADVERSE WEATHER	TOTAL HOURS
FOREMAN <i>owner</i>	1								1			66
FOREMAN <i>Supervisor</i>	1								1			66
FOREMAN												
LINEMEN	2								2			132
LINEMEN <i>appr.</i>	2								2			132
LINEMEN												
LINEMEN												
EQUIP. OPERATORS	2								2			132
EQUIP. OPERATORS												
EQUIP. OPERATORS												
GROUND MEN	2								2			132
GROUND MEN												
GROUND MEN												
GROUND MEN												
<b>TOTAL MEN</b>	<b>10</b>	<i>worked 11 HRS. each day for Six days This week</i>										<b>660</b>

**EQUIPMENT ON JOB (List on Monday and note only changes during week.)**

- 3- 3/4 Ton Pickups \_\_\_\_\_
- 3- bucket Truck \_\_\_\_\_
- 2- Line Trucks \_\_\_\_\_
- 3- manual cranes w/Baskets \_\_\_\_\_
- 4- Drum puller \_\_\_\_\_
- 2- Flat bed's Truck w/2 wire stands on each Truck \_\_\_\_\_
- Single Wheel Tensioner \_\_\_\_\_
- Dynamometer \_\_\_\_\_
- John Deere JD 440 skidder w/Blade & 4 wheel for sack line puller \_\_\_\_\_
- D4 cat<sup>W</sup> Blade Ripper used for snubbing wire ton \_\_\_\_\_

**WEATHER CONDITIONS (Indicate above approx. time lost due to adverse weather.)**

*Monday* overcast cool windy 5 to 20 mph Temp 12° to 26°  
*Tuesday* overcast w/fog cool windy 5 to 10 mph Temp 16° to 31°  
*Saturday* clear wind 5 to 20 mph Temp 19° to 30°

## DAILY RECORD OF CONTRACTORS WORK

12-12-11

STAND NO.	DIGGING-FT.		POLES SET	STRUCTURE FRAMED	ANCHORS INSTALLED	AERIAL MARKER	FENCE GATES
	EARTH	ROCK					
From 224 <sup>c</sup> 225 to 213 <sup>c</sup> 212		616 acsr wire			Pulled was (9,535 ft) on 3- steel wire reels that had 9,900 ft on each steel reel. 5280 / 18588 = 1.6170		= 1.62 miles
From 213 <sup>c</sup> 212 to 198 <sup>c</sup> 197		616 acsr wire			Pulled was (9,900 ft) on 3- steel reels that had 9,900 ft on each steel reel. 5280 / 4700 = 1.1231		= 1.84 miles
From 198 <sup>c</sup> 197 to 184 <sup>c</sup> 183		616 acsr wire			Pulled was (9,312 ft) on 3- steel reels that had 9,900 ft on each steel reel. 5280 / 19319 = 1.7416		= 1.76 miles
From 184 <sup>c</sup> 183 to 169 <sup>c</sup> 168		616 acsr wire			Pulled was (9,900 ft) on 3- steel wire reels that had 9,900 ft on each steel reel. 5280 / 19704 = 1.8379		= 1.84 miles
(To 169 <sup>c</sup> 168)							
This week							9.06 miles Total

**PROGRESS OF CONDUCTOR STRINGING, SAGGING, CLIPPING** Pulled in 3 Phase of Sage sack line from between str 224<sup>c</sup> 225 to str 213<sup>c</sup> 212. Then from str 213<sup>c</sup> 212 to <sup>between str</sup> 198<sup>c</sup> 197 and 198<sup>c</sup> 197 to 184<sup>c</sup> 183 also 184<sup>c</sup> 183 to 169-168.

Pulled in 616 acsr <sup>wire</sup> and sagged wire from structure 224<sup>c</sup> 225 to structure 169-168. Clipped all structure from 225 to 169.

**GENERAL REMARKS (Include R/W, Material, Inspection Decisions)**

Pulling sack line from between 224<sup>c</sup> 225 to between 213<sup>c</sup> 212. (Set up 120' ahead of 225 towards 224) to (Setup 120' ahead of 212) slough projects setup in 212-211. Reused reels for last pull. Total pulled of 616 wire is 8,535 ft left is 1,365 ft on three steel reels. That had 9,900 ft of 616 wire. (Set up 120' ahead 183; (Set up 150' back of 169.)

**INSPECTOR'S WEEKLY REPORT**

Line: Merricant wood Farm to Ellendale 230KV Project

Period: Dec. 11 to Dec 19, 2011 Contractor: Brink

Inspector: Kenneth W. Fisher General Foreman: Allen Hatley

*OVERCAST - Fog to clear Windy 5- to 30 mph East up to 48 mph.*

Weather Conditions: Temp 12° to 30° Workmen Total: 21-24

**Progress:**

1. Roads Built \_\_\_\_\_
2. Gates Built \_\_\_\_\_
3. Material Hauled \_\_\_\_\_
4. Structures Framed Ground 96, 94, 95 Structure 98 will be quick framed  
114, 113, 112, 111, 110, 109, 108, 107, 106, 99, 97
5. Digging 112, 120 to 128, 176 to 125, 173 to 167, 165 to 164, 162 to 151, 148 to 141
6. Structures Set 113, 190 to 179, 176 to 145, 123 to 119, 165 to 164, 162 to 151, 148 to 143
7. Sock Line Pulled \_\_\_\_\_
8. Wire Strung \_\_\_\_\_
9. Wire Sagged & Clipped \_\_\_\_\_
10. Clean-up Installing Palmer Insulators w Carcass Ring also with dollies on all insulators  
Including static and fiber dollies from Structure 240 to toward Sta 25  
ON THE 230KV only.

**Comments:**

Progress has been good this week. Lost one day to setting  
Structure 90 to gusty winds up to 48 mph. on Wednesday 14<sup>th</sup> of Dec  
Ground Framing is Done up to Structure 92. (16) Structure  
were Ground Framing this week.

Dug holes for 2 pole "H" Structure this week was (44) holes dug.  
Set (43) "H" structures this week crushed Rock used Saw back fill  
material (424 cu yds used). Total 1,046 Pt of Earth dug this week.

# TRANSMISSION LINE CONSTRUCTION

## RECORD OF CONTRACTORS TIME & EQUIPMENT

PROJECT Merricourt wind farm to Elberdale 230 KV Project REPORTED BY Kenneth W Fisher

DATE Tuesday 12-13-2011  
Monday 12-12-2011  
Break contractor

MEN	NO.	TRAILS & LANDINGS	POLE & MATERIAL HAULING	HOLE DIGGING	STRUCTURE FRAMING (Ground)	STRUCTURE SETTING	STRUCTURE FRAMING (Aerial)	ANCHOR INSTALLATION	CONDUCTOR HAUL, STRING, SAG, CLIP	CLEAN-UP WORK	LOST TIME DUE TO ADVERSE WEATHER	TOTAL HOURS
FOREMAN <u>Supervisor</u>	1											
FOREMAN												
FOREMAN	1					1						
LINEMEN												
LINEMEN <u>Appr</u>	4		x 1		x 3							
LINEMEN												
LINEMEN <u>Appr</u>	1				1							
LINEMEN <u>Appr</u>	1										1	
EQUIP. OPERATORS	1				1							
EQUIP. OPERATORS	4		x 1		x 3							
EQUIP. OPERATORS												
GROUNDMEN	4				4							
GROUNDMEN												
GROUNDMEN	3		x 1		x 2							
GROUNDMEN	1										1	
TOTAL MEN	21											462

**EQUIPMENT ON JOB (List on Monday and note only changes during week.)**

- 2 2 Ton Pickups Erano 20 Ton crane rubber tire Flat bed truck w/air compressor w/4 ton
- 2 1 Ton Pickups Small utility Trailer w/ Framing material for 24" Structures
- Elliott Power Traxx cat track crane Th 103 cat loader w/ forks (cat loader w/ Bucket 1500yds)
- Mantic 803 Cat Track crane (span deck) (TCB 550 loader w/ framing bin) 2-5yd rock Trucks
- John Deere with National 740/500D crane mounted on back of skidder 1-10yd Dump Truck
- Truck mounted National crane 30 ton w/ Bucket 500 Toyota Highway digger
- John Deere digger with Dual wheels John Deere skidder w/ national crane
- Marooka Dump Truck MST 1500VD rubber cat trucks
- 18.5 New Holland Rubber cat Trucks w/ Bucket
- 2 3/4 Ton Pickups Truck mounted National crane with auger 18 Ton

**WEATHER CONDITIONS (Indicate above approx. time lost due to adverse weather.)**

- 12-12-11 Overcast cool windy 5 to 20 mph Temp 12° to 26°
- 12-13-11 Overcast Fog wind 5 to 10 mph wind still - 2°  
Temp 16° to 30°

### DAILY RECORD OF CONTRACTORS WORK

12-12-11 to 12-13-11

STAND NO.	DIGGING-FT.		POLES SET	STRUCTURE FRAMED	ANCHORS INSTALLED	AERIAL MARKER	FENCE GATES
	EARTH	ROCK					
112	26.0'	10 cu yds	2-110 cl-1	T-230-A-W	F-46 HS	crushed Rock	See back p. 11/11/11
190	23.0'	10 cu yd	2-95 cl-1	12-12-11	Bearing Plates		
189	23.0'	10 cu yd	2-95 cl-1	12-12-11	crushed Rock		
188	23.0'	10 cu yd	2-95 cl-1	12-12-11			
197	23.0'	10 cu yd	2-95 cl-1	12-12-11			
186	24.0'	14 cu yd	2-100 cl-1	12-12-11			
185	23.0'	10 cu yd	2-95 cl-1	12-12-11			
184	23.0'	10 cu yds	2-95 cl-1	12-12-11			
183	23.0'	10 cu yds	2-95 cl-1	12-12-11			
182	23.0'	10 cu yds	2-95 cl-1	12-13-11			
181	22.0'	10 cu yds	2-90 cl-1	12-13-11			
180	22.0'	10 cu yds	2-90 cl-1	12-13-11			
179	23.0'	10 cu yds	2-95 cl-1	12-13-11			
178	23.0'	10 cu yds	2-95 cl-1	12-13-11			
176	24.0'	10 cu yds	2-100 cl-1	12-13-11			
175	23.0'		95	12-13-11			
173	22.0'		90	12-13-11			
172			100				
171			95				
170			100				
169			95				

HWY 11 crossing

393 St of Earth 154 cu yds of crushed Rock used for Backfill material

**PROGRESS OF CONDUCTOR STRINGING, SAGGING, CLIPPING** Structure 179; 174; are all ready set.

2-men continued installing Polymer Insulators, porcelain Pins along with Dollys on insulators and static also Fiber wires with jaco line rope. From 210 working towards Structure no. 95

**GENERAL REMARKS (Include R/W, Material, Inspection Decisions)**

7-men set 2 single for Str. 112.

12-men worked on setting "H" structures and digging holes for 2 pole "H" structures listed above.



# TRANSMISSION LINE CONSTRUCTION

## RECORD OF CONTRACTORS TIME & EQUIPMENT

PROJECT Merrimack Mill Farm to Ellendale REPORTED BY Kenneth W. Fisher  
230KV Project

DATE wednesday 12-14-11  
Thursday 12-15-11  
Brink Contractor

MEN	NO.	TRAILS & LANDINGS	POLE & MATERIAL HAULING	HOLE DIGGING	STRUCTURE FRAMING (Ground)	STRUCTURE SETTING	STRUCTURE FRAMING (Aerial)	ANCHOR INSTALLATION	CONDUCTOR HAUL, STRING, SAG, CLIP	CLEAN-UP WORK	LOST TIME DUE TO ADVERSE WEATHER	TOTAL HOURS
FOREMAN <u>Supervisor</u>	1											22
FOREMAN												
FOREMAN	1				1							14
LINEMEN												
LINEMEN <u>apps</u>	4		1		3							59
LINEMEN												
LINEMEN <u>apps</u>	1										1	14
LINEMEN <u>apps</u>	1				1							22
EQUIP. OPERATORS	1				1							22
EQUIP. OPERATORS	4		1		3							59
EQUIP. OPERATORS												
GROUNDMEN	4				4							88
GROUNDMEN												
GROUNDMEN	3		1		2							45
GROUNDMEN	1										1	14
<b>TOTAL MEN</b>	<b>21</b>											<b>369</b>

**EQUIPMENT ON JOB (List on Monday and note only changes during week.)**


**WEATHER CONDITIONS (Indicate above approx. time lost due to adverse weather.)**

12-14-11 overcast cool windy 5 to 15 mph. Temp 14° to 25°

12-15-11 overcast cool windy 5 to 30 mph gust to 45 mph. Temp 17° to 24°

# DAILY RECORD OF CONTRACTORS WORK

12-14-11 to 12-15-11

STAND NO.	DIGGING-FT.		POLES SET	STRUCTURE FRAMED	ANCHORS INSTALLED	AERIAL MARKER	FENCE GATES
	EARTH	ROCK					
175		2-9.5 cl-1	10 cu yds	12-14-11			
173		2-9.5 cl-1	10 cu yds	12-14-11			
172	24.0'	2-10 cl-1	10 cu yds	12-14-11			
171	23.0'	2-9.5 cl-1	10 cu yds	12-14-11			
170	24.0'	2-10 cl-1	10 cu yds	12-14-11			
169	23.0'	2-9.5 cl-1	10 cu yds	12-14-11			
168	23.0'	2-9.5 cl-1	10 cu yds	12-14-11			
167	23.0'	2-9.5 cl-1	10 cu yds	12-14-11			
165	24.0'	2-10 cl-1	10 cu yds	12-14-11			
* 164	22.0'	2-9.5 cl-1	10 cu yds	12-15-11			
163	<del>Set and ready</del>						
162	22.0'	9 cl		12-15-11			
161	24.0'	100		12-15-11			
110			12-14-11	T-230A W T-46 HS			
109			12-14-11	T-230A W T-46 HS			
104			12-14-11	T-230A W T-46 HS			
103			12-15-11	T-230A W T-46 HS			
102			12-15-11	T-230A W T-46 HS			
101			12-15-11	T-230A W T-46 HS			
160	23.0'	95		12-15-11			
159	23.0'	95		12-15-11			
158	24.0'	100		12-15-11			

302 ST of Earth (10) 100 cu yds of crushed Rock used for ball pit material

**PROGRESS OF CONDUCTOR STRINGING, SAGGING, CLIPPING**

Structure 166 & 163 are all ready set

2 men continued installing Polymer insulators w/ corona rings along with dollies on insulators and static also Fiber wires with gas line along from structure 2.35 toward structure No. 95

**GENERAL REMARKS (Include R/W, Material, Inspection Decisions)**

\* Set one structure today shut down setting crew due to high windy gusty up to 45 mph.

12-men dug holes for "H" structures and set "H" structures listed above.

6 men Ground Framed "H" structures listed above.

108 to 105 were set earlier.



## DAILY RECORD OF CONTRACTORS WORK

12-16-11 to 12-19-11

STAND NO.	DIGGING-FT.		POLES SET	STRUCTURE FRAMED	ANCHORS INSTALLED	AERIAL MARKER	FENCE GATES
	EARTH	ROCK					
162		10 cu yds	2-90 ct-1	12-16-11	Crushed Rock used	used	See Backfill Material
161		10 cu yds	2-100 ct-1	12-16-11			
160		10 cu yds	2-95 ct-1	12-16-11			
159		10 cu yds	2-95 ct-1	12-16-11			
158		10 cu yds	2-100 ct-1	12-16-11			
157	23.0'	10 cu yds	2-95 ct-1	12-16-11			
156	24.0'	10 cu yds	2-100 ct-1	12-16-11 Dig	Set 12-19-11		
155	23.0'	10 cu yds	2-95 ct-1	12-16-11 Dig	Set 12-19-11		
154	24.0'	10 cu yds	2-100 ct-1	12-16-11 Dig			
153	23.0'	10 cu yds	2-95 ct-1	12-16-11 Dig			
152	23.0'		2-95 ct-1	12-17-11			
151	24.0'	10 cu yds	2-100 ct-1	12-17-11			
150-149	have been set earlier			12-17-11			
148	23.0'	10 cu yds	2-95 ct-1	12-17-11			
147	23.0'	10 cu yds	2-95 ct-1	12-17-11			
146	23.0'	10 cu yds	2-95 ct-1	12-17-11			
145	24.0'	10 cu yds	2-100 ct-1	12-17-11			
144	24.0'	10 cu yds	2-100 ct-1	12-17-11			
143	23.0'	10 cu yds	2-95 ct-1	12-17-11	✓	✓	✓
142	24.0'		100				
141	23.0'		95				

(35 ft of earth) 190 cu yds of crushed rock used for backfill material.

**PROGRESS OF CONDUCTOR STRINGING, SAGGING, CLIPPING**

2-men continued installing Polymer Insulators w/ Corona Rings along with dillies on Insulators and static also Fibre wire with Pole Line. Rope Span 232 Towards Structure No: 95

**GENERAL REMARKS (Include R/W, Material, Inspection Decisions)**

12-men dug holes for "H" Structures and set "H" Structures listed above.

